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The port of Osaka

Osaka, Japan

[1930]

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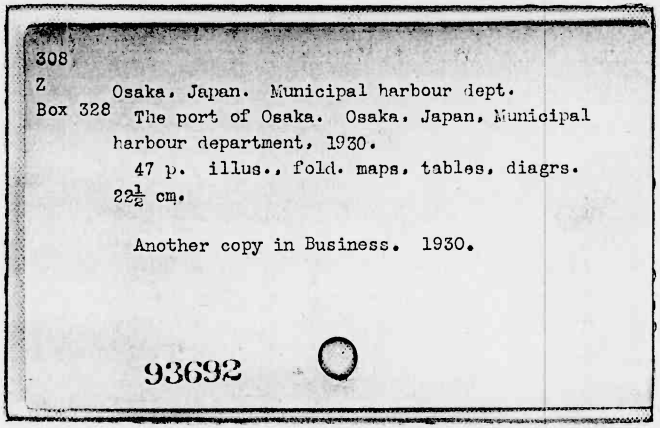

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Osaka, Japan. Municipal harbour dept.
The port of Osaka. Osaka, Japan, Municipal harbour department, 1930.
47 p. illus., fold. maps, tables, diagrs. 22½ cm.

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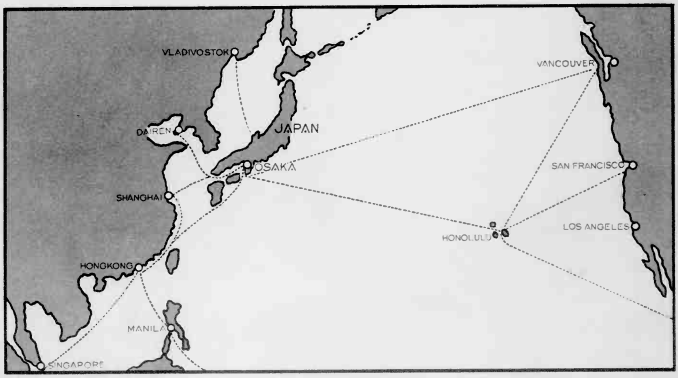

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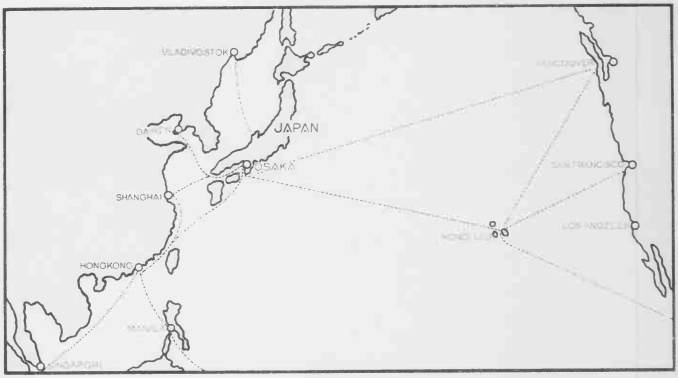

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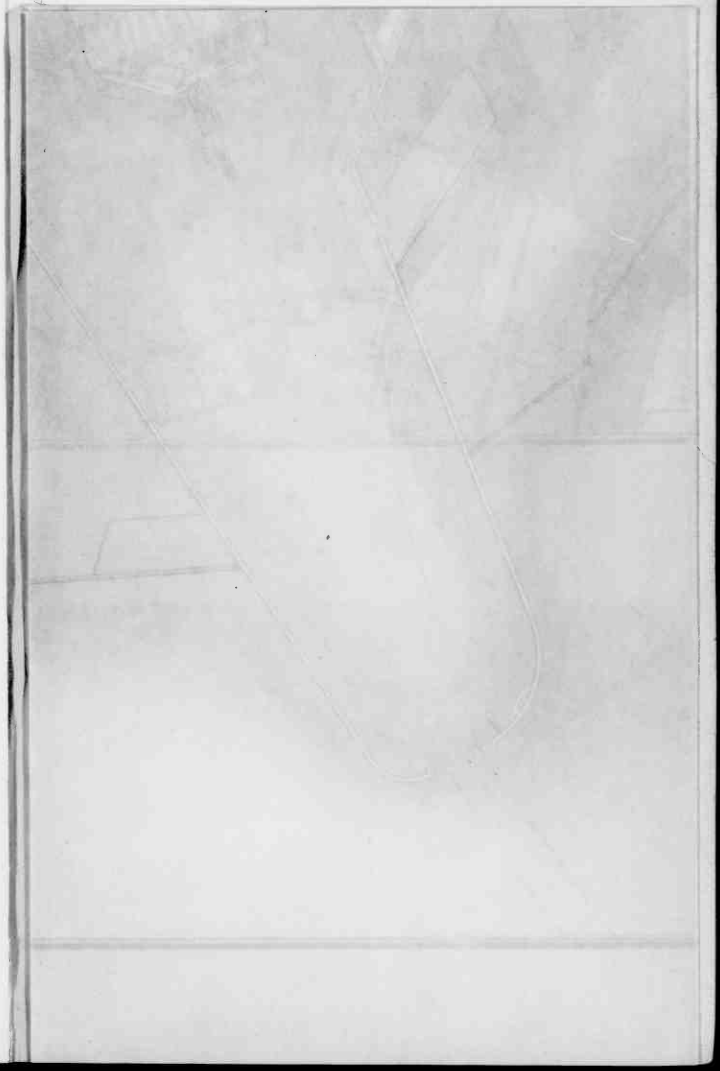

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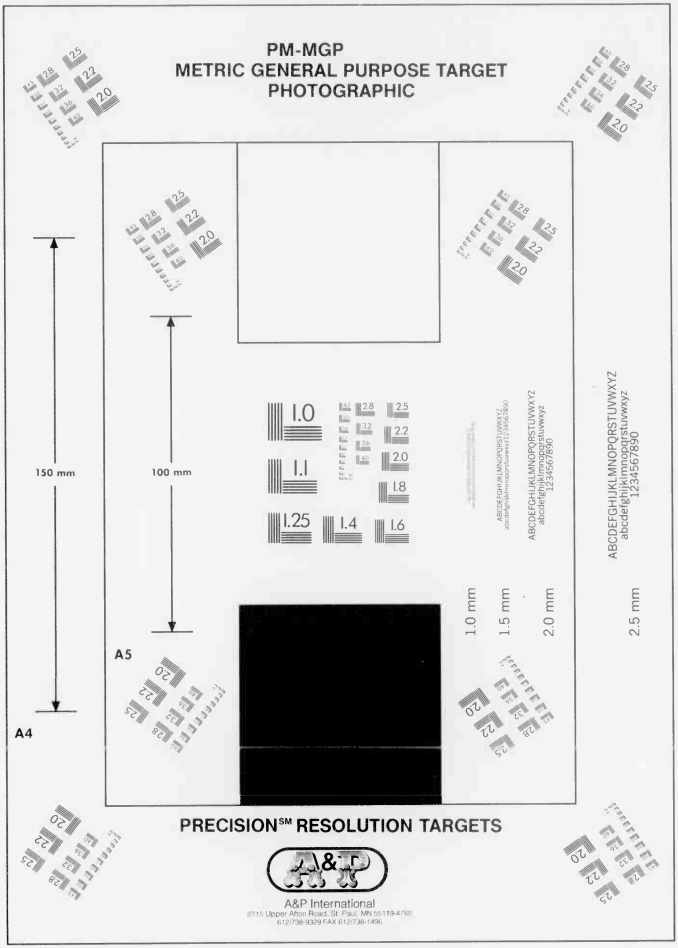

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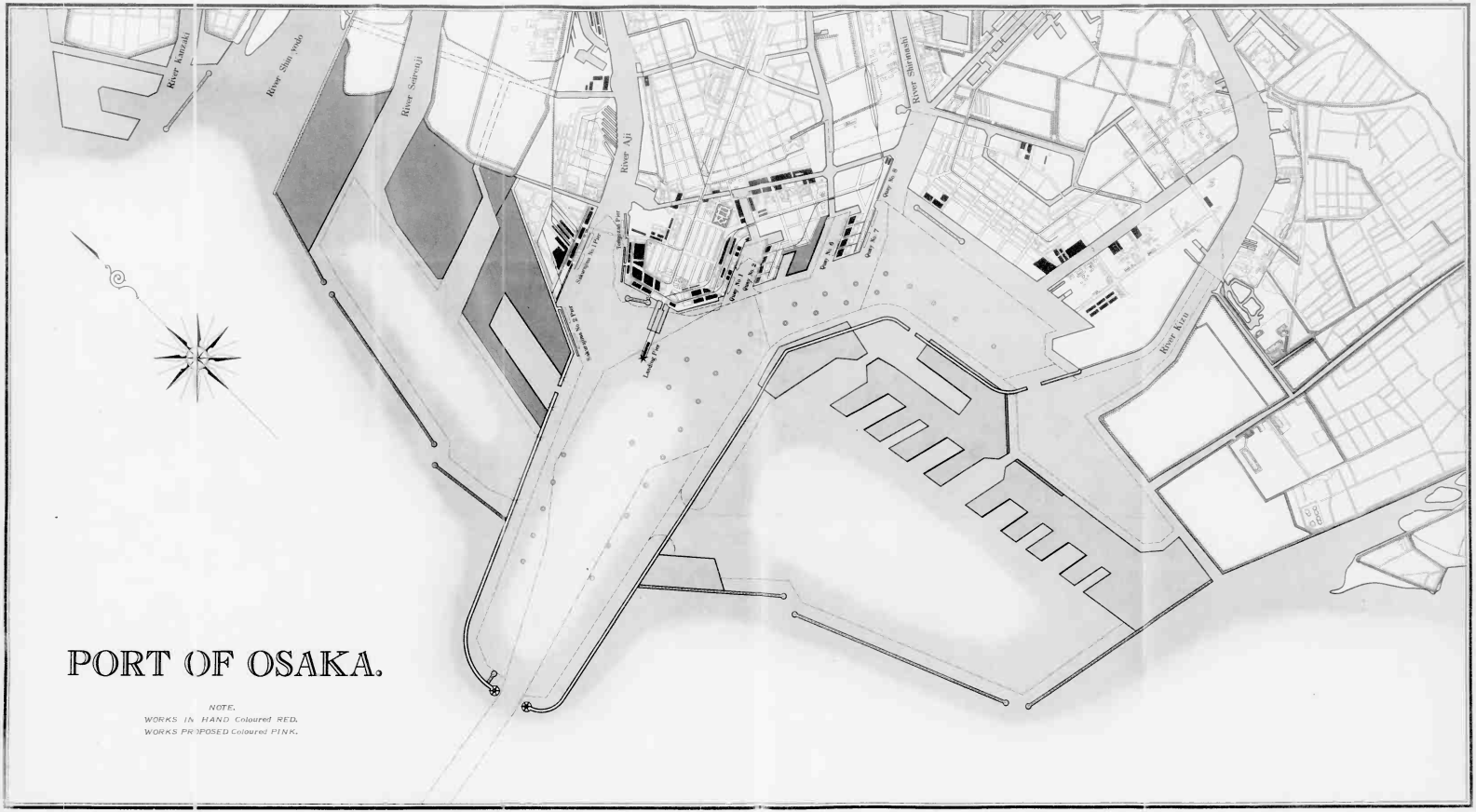

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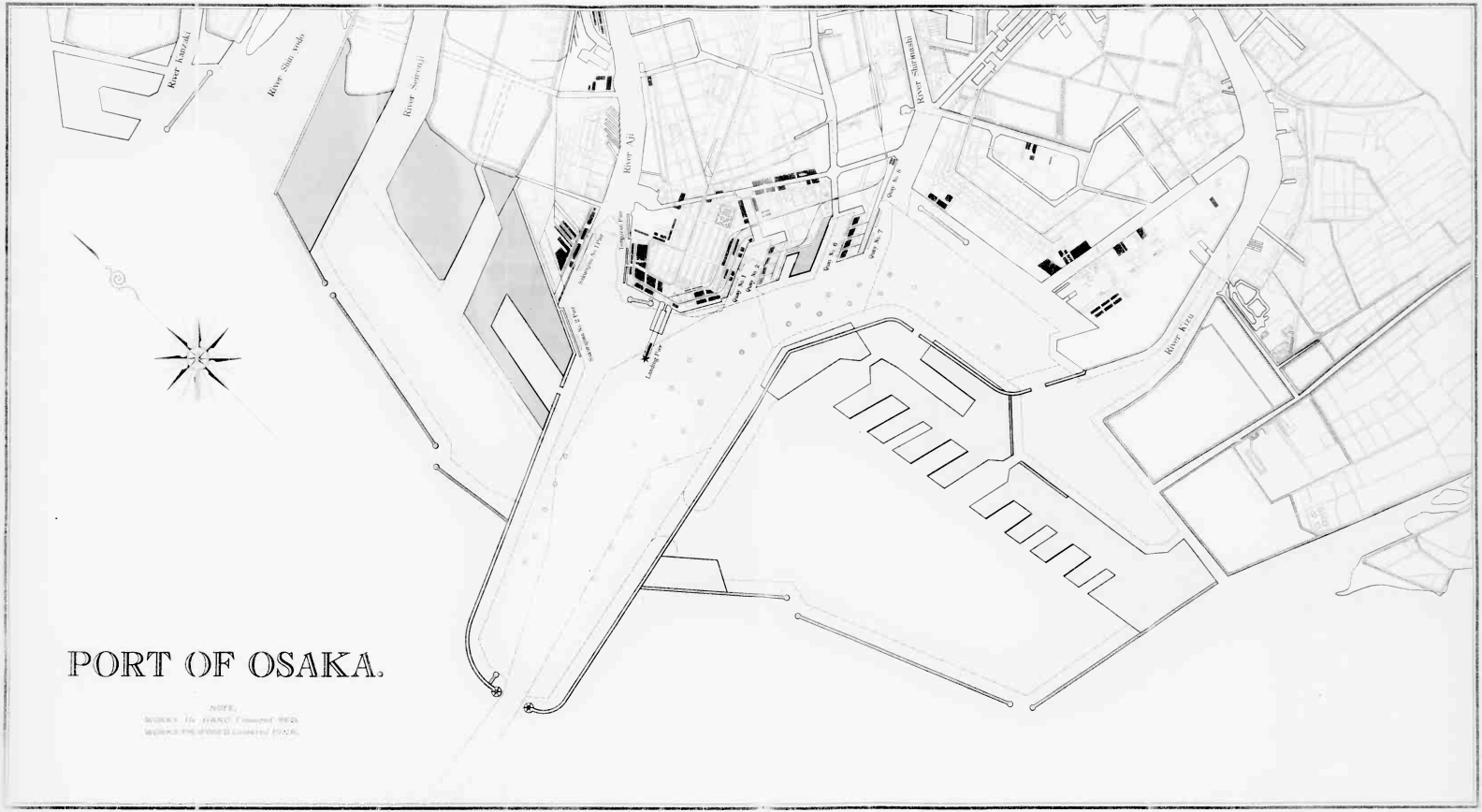

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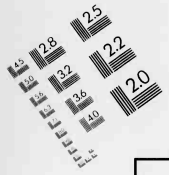

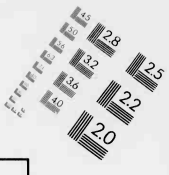

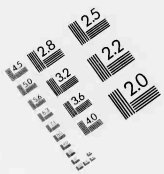

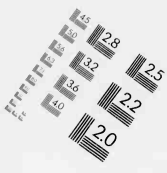

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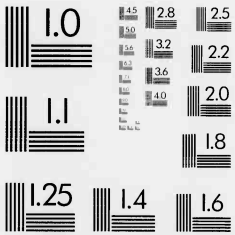

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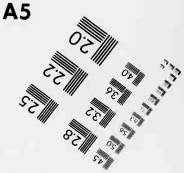

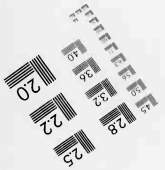

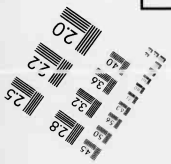

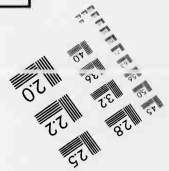

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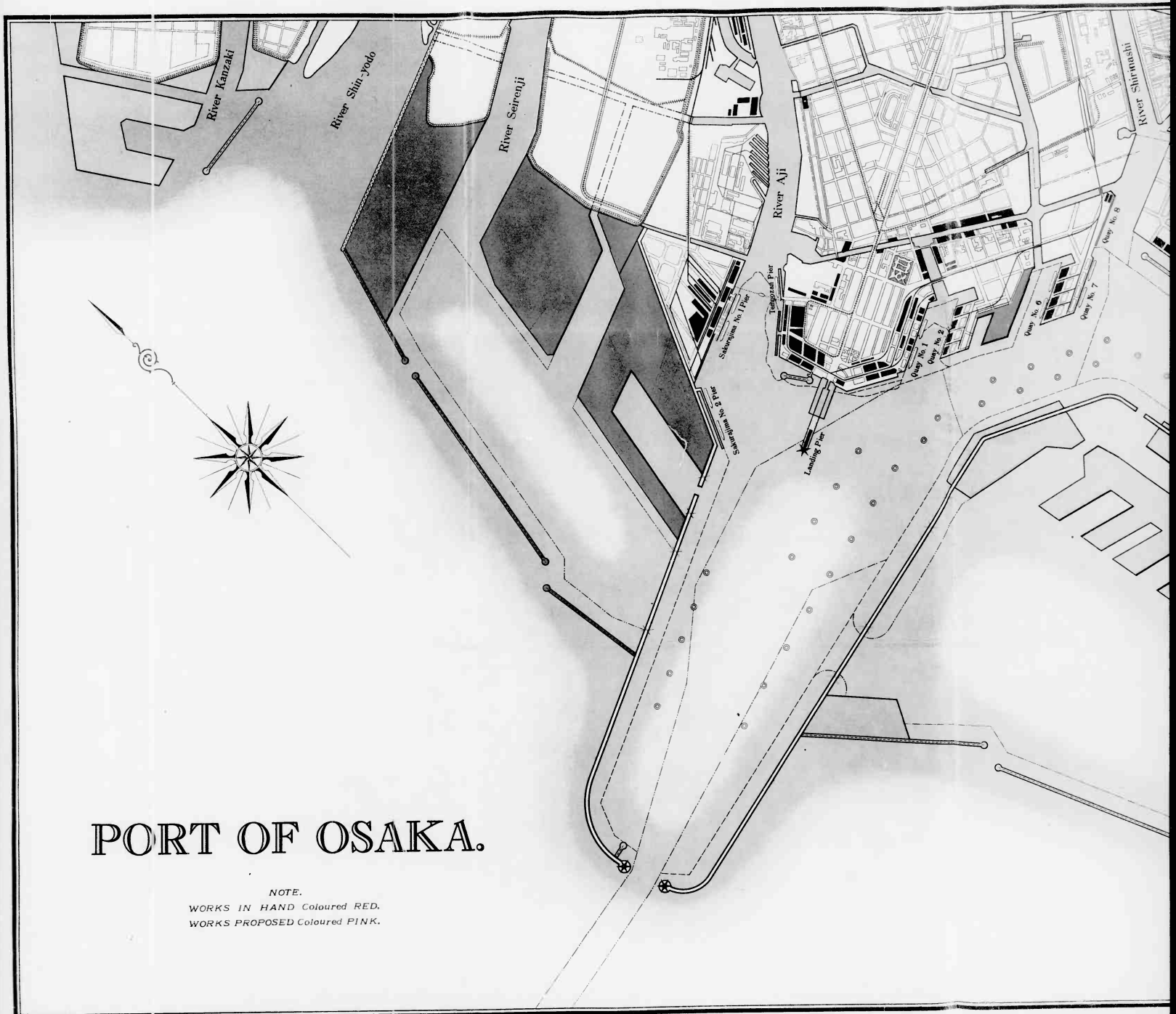

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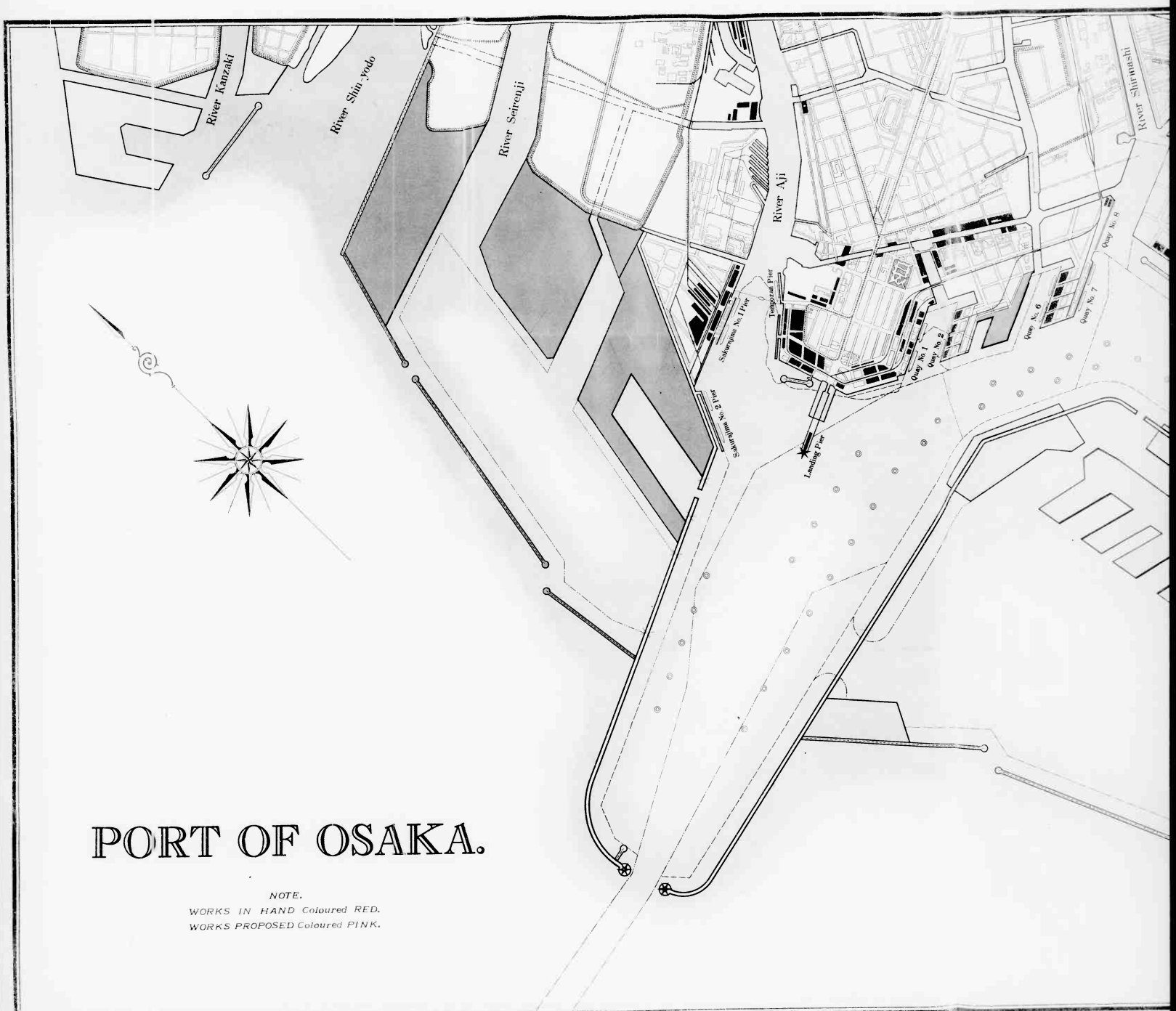

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River Kizu
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Temporal Pier
Quay No. 1
Quay No. 2
Quay No. 6
Quay No. 7
Quay No. 8
Sakurajima No. 2 Pier
Landing Pier

River Aji
River Shirinashi
River Kizu
Sakaejima No. 1 Pier
Sakaejima No. 2 Pier
Temporary Pier
Landing Pier
Quay No. 1
Quay No. 2
Quay No. 6
Quay No. 7
Quay No. 8

June 9, 1931 DA/HE

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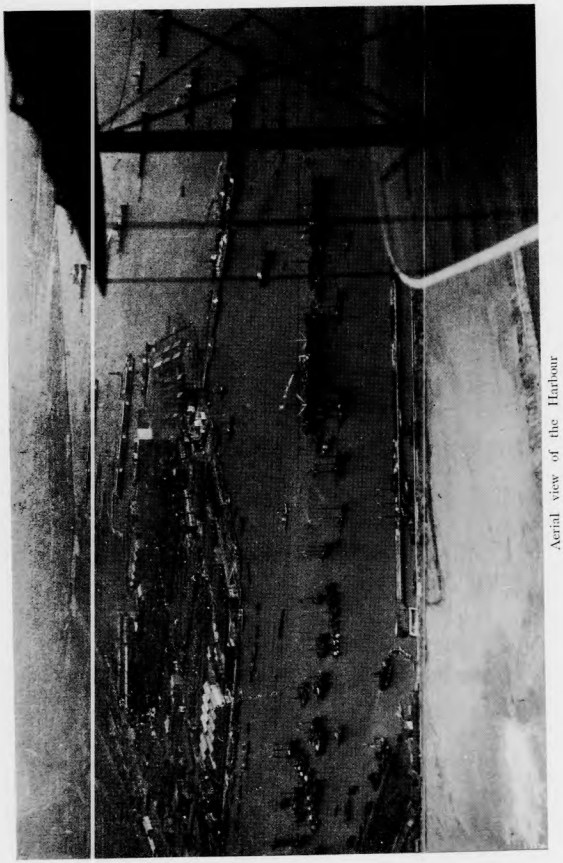


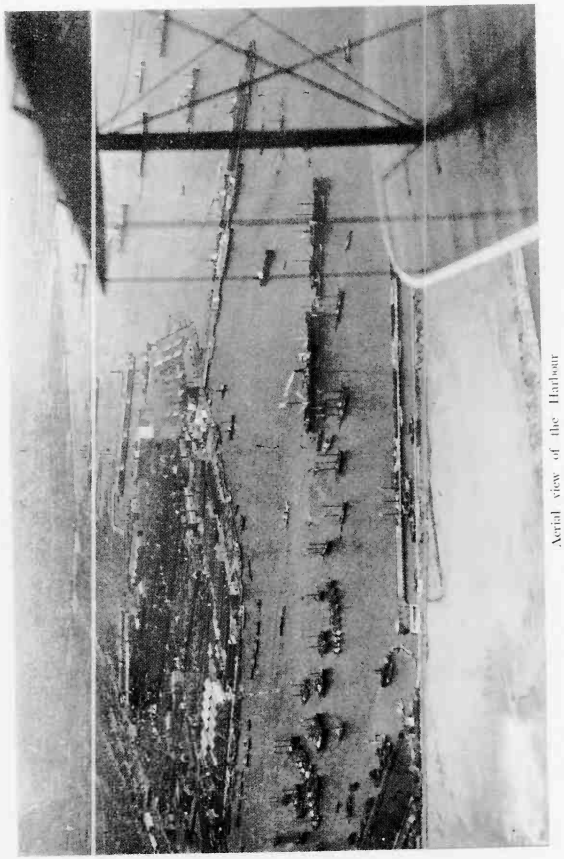
Aerial view of the Harbour

INTRODUCTION

The phenomenal growth of the Port of Osaka in recent years is one of the outstanding features in the history of port improvement in Japan. The great harbour, as it stands today, modern in every respect, is the product of more than thirty years of determined endeavour on the part of the Municipality. The harbour construction work which has developed the present port was started in the year 1897 as a municipal undertaking. Needless to say, enormous appropriations were required for the plan, and it took until March, 1929, to complete the entire project.

Although the present improved harbour is quite new, the history of the Port of Osaka dates back to the historical past. From ancient times, the industrial metropolis of the Empire has been the hub of the nation's commerciel and manufacturing activities and the old port thrived as the centre of waterborne trade for centuries.

The unprecedented national progress since the dawn of the Meiji Era, however, brought such swiftly inereasing importance to Osaka that even with added improvements, the old port facilities became inadequate to meet the requirements of the age. As a result, the greater part of the goods shipped in and out of Osaka had to pass through the neighbouring port of Kobe, threatening to eliminate Osaka as a port city. It was in order to prevent



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The unprecedented national progress since the dawn of the Meiji Era, however, brought such swiftly increasing importance to Osaka that even with added improvements, the old port facilities became inadequate to meet the requirements of the age. As a result, the greater part of the goods shipped in and out of Osaka had to pass through the neighbouring port of Kobe, threatening to eliminate Osaka as a port city. It was in order to prevent

this great material loss as well as the loss in prestige that the 1897 harbour project was drafted. The first stage was completed in 1903 marking a new epoch for the Port of Osaka. Since then, the harbour has been improved and enlarged unreservedly.

These efforts have not proved in vain. The shipping through Osaka has increased tremendously of late, and it may proudly be said that the port has finally succeeded in keeping pace with the astounding industrial development of the City.

It is worth noting that the shipping through the Port of Osaka has grown in recent years in spite of the fact that the harbour construction work was not fully completed. Now that the whole project has been finished, giving the Port the most up-to-date facilities, the future is even brighter and without doubt the Osaka Port is destined to play an important role in the development of Japan's foreign trade as well as the shipping and commerce of the Far East. Already the Nippon Yusen Kaisha and the Osaka Shosen Kaisha have made Osaka a regular port of call for their liners on the European, North and South American, and other major runs. Their new services are not only welcomed by the shippers and consignees but are proving successful beyond expectation.

In view of the maritime importance of Osaka, the history of the port's development, its present condition, and its future possibilities must be questions of interest to those connected with international trade. The purpose of this pamphlet is to furnish the answers to such questions.

HISTORY

Osaka as a port is almost as old as the Empire itself. It can be traced back as far as 660 B. C. It first appears on record as Naniwa-*tsu* (*tsu* meaning harbour). There is evidence that in those days of the founding of the Empire, Japan's intercourse with China and Chosen mostly passed through Naniwa-*tsu*. It must be due to geographical advantage that the harbour became such an important medium of foreign and domestic intercourse from so early a period. The 16th Emperor, Nintoku Tenno (313-399), selected Naniwa as his capital. With the additional political prestige, the port prospered still more. Emperor Nintoku by his benevolent public improvement work also greatly benefited his capital city.

The next outstanding period for Osaka was during the final years of the long civil strife in the mediæval age. Toyotomi Hideyoshi (1536-1596) who came into power, bringing peace after years of war, made Osaka his stronghold by building a castle. Osaka thrived as a result and became the centre of the Empire, both politically and economically. The present Osaka owes much to this great warrior-statesman.

Tokugawa Ieyasu (1543-1616) who next came into the control of the realm, chose Yedo, the present Tokyo, as the seat of power. As a consequence, the political centre moved to Yedo, but Osaka continued to be the heart of the Empire's economic life.

During the rule of the Tokugawa Shogunate, Osaka prospered even more than while it was the political capital. The majority of the feudal lords found it to their advantage to build storehouses in Osaka and shipped the products of their domains to be sold through the hands of Osaka merchants. The feudal lords thus raised their necessary funds in Osaka and it was not long before the management of the various daimyos' finances was impossible without the assistance of Osaka. By this time, the rice market of Osaka had also come to control the quotations throughout the country and for about three centuries during the Tokugawa regime, the city prospered as the chief port for the principal foodstuff of the nation. However, it must be remembered

Historic Osaka Castle

The Osaka Municipal Office

that Osaka's water borne traffic, in those days, was circumscribed by the Shogunate's policy of non-intercourse with foreign nations. Osaka was the main port, but its activity was limited to domestic shipping.

This policy of isolation was discarded with the Meiji Restoration. In 1868, the new government opened the Port of Osaka to foreign trade, but owing to the domestic nature of the operations in the preceding period, the harbour was not in condition to permit the entrance of the larger vessels used in deep sea shipping. In those days, the annual flood and sediment washed down by the Yodo River made the maintenance of the river channel difficult. The sand bars at the river mouth further handicapped the harbour. Only small vessels were able to come up the Ajikawa waterway during the high tide to reach the wharves at Kawaguchi. Therefore, the cargoes coming into and leaving Osaka on ocean-going vessels either had to be transhipped by lighters or railway at Kobe.

The Osaka merchants were thus placed at a great disadvantage, and the voluminous trade built up by years of energetic business methods was in danger of passing into the hands of rival cities. The Osaka waterfront activities were dwindling to a fraction of their former volume. Something had to be done and the original movement for the present harbour development was launched among the citizens. The need for action was great and the plan to enlarge the harbour to bring ocean-going vessels to Osaka direct received rallying support.

The municipal authorities, too, had seen the dire need and were carrying on investigations when the popular campaign was started. With a united front, the harbour construction bill was drafted and passed by the city assembly, making the project a municipal undertaking. Part of the expenditure was covered by the central government's subsidy and the actual construction work was started in 1897.

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HARBOUR CONSTRUCTION

The harbour plan started in 1897 called for the construction of breakwaters to create a great artificially protected area along the shore line between the mouths of the Kizu and Aji Rivers. Supplementing this basic project were the increasing of the water's depth inside the breakwaters; reclamation of the tidal flats for the construction of piers, quays, landing places, and lighter basins; erection of lighthouses and beacons, distribution of anchor buoys; construction of docks, canals, roads, bridges, sheds, and warehouses, establishment of railway connections; setting up of cargo handling equipment; and many other necessary facilities wich make up a complete harbour.

The riparian improvement work on the Yodo River to eliminate flood danger, which was a prerequisite of the harbour construction, was also carried out independent of the port project.

A part of the gigantic undertaking was completed in 1903. The harbour was dredged sufficiently to enable the entrance of 10,000 ton vessels and the passage of 1,000-tonners up the Aji River. As a result many ship owners extended their lines to Osaka while other services were started with Osaka as the terminus. The shipping through the Port increased with a sudden jump, proving the efficacy of the harbour improvement.

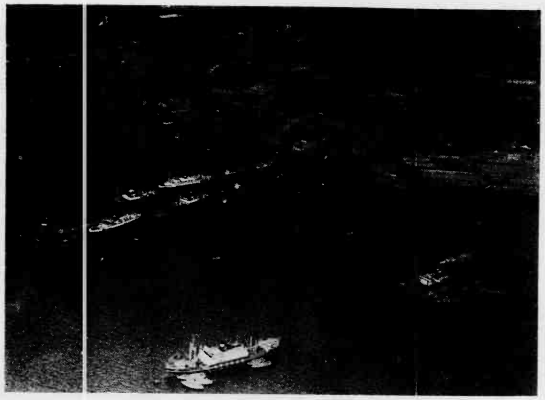
The work was continued and by 1915 the major portion of the original project was realized. From that year, the construction was temporarily suspended due to financial reasons. However, a new demand for greater port facilities appeared with the World War. The industry and trade of the city received unprecedented stimulus from the war boom and a better port became an urgent necessity.

Aided by the war time prosperity, the municipal finance also improved. As the revenue began to increase, the suspended work was again taken up in 1918. Since then for eleven years, there was no halt until March, 1929, when the entire project was completed. The supplementary improvements on land, such as the transit sheds, warehouses and the installation of cargo handling machinery were also finished in rapid succession. The additional undertaking of building Pier No. 2 at Sakurajima was also completed almost simultaneously.

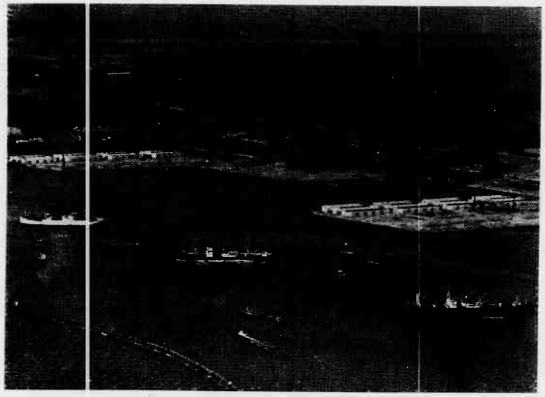
As to the railway connection of the waterfront with the trunk line, there had been only one feeder line extended to the Sakurajima district, along the northern bank of the Aji River. The extensive area to the south had no concection until it was made in 1928. By the construction of this new port line, all the piers, quays, and wharves in the harbour came to possess railway connections.

For all these aforementioneh improvements, the City of Osaka expended ¥48,000,000 since the start of the original project until the 1929 fiscal year. By adding the port maintenance cost and the amount paid for interest and redemption of principal of the harbour construction bonds, the total amount paid out by the Municipality runs up to the huge sum of ¥109,000,000.

On the revenue side, some ¥9,000,000 was received up to 1929 as subsidy from the National Treasury. The resources drawn on by the City were the income from the port operation and appropriation made from the general municipal tax revenue. The deficit was covered from time to time by the flotation of harbour construction bonds, some ¥40,000,000 of which are still outstanding. Further bond redemption will be carried out by appropriating the port income, municipal tax revenue, and National Treasury subsidy.



The Aji River Mouth and the Landing Pier



Quays newly constructed

PORT OF TODAY

Location.

The exact position of the Osaka Port is Lat. 34° 41' N., Long. 135° 29' E. The city is on Osaka Bay, which not only holds the key position of the Inland Sea, but opens directly into the Pacific Ocean through the Kitan Strait. Kobe is only 16 miles west of the City. Kyoto lies 27 miles to the north, while the distance to Tokyo is 350 miles.

Harbour Area, Depth, and Port Entrances.

The breakwaters protecting the harbour are 8,687 metres long and the area of the protected water is 6,546,000 square metres. Maximum depth in the above area is 9 metres at mean low water. The opening between the northern and southern breakwaters is 182 metres at the sea floor and is the main entrance to the harbour. There is also a passage at the northern end of the harbour and another at the southern extremity. Both of these are for smaller vessels. The main entrance has lighthouses, one on each side. Another lighthouse is located at the Landing Pier. There are also two beacons in the lighter basin.

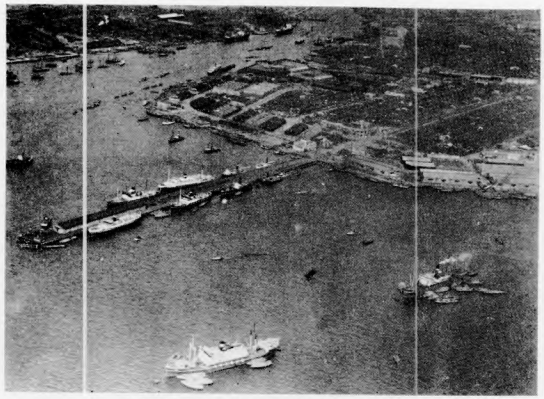
Tide and Sea-Bed.

Maximum high tide is +2.05 metres; average high tide. +1.44 metres; and minimum low tide, −0.59 metres.

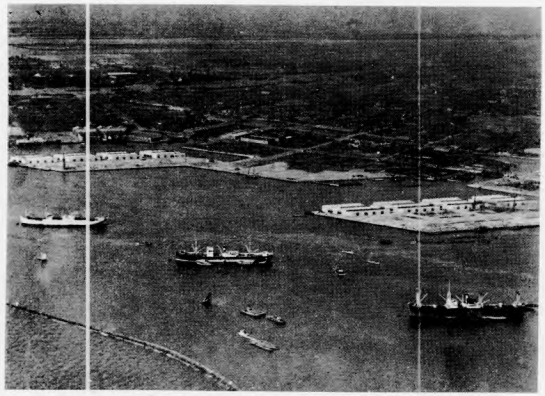
The sea-bed is of mud and assures safe anchorage.

Anchor Buoys.

There are 31 in the harbour, but as some of them must be paired for fore and aft mooring, the actual number of ships which these buoys can handle is 25. The municipality charges small fees for their use.



The Aji River Mouth and the Landing Pier



Quays newly constructed

PORT OF TODAY

Location.

The exact position of the Osaka Port is Lat. 34° 41' N., Long. 135° 29' E. The city is on Osaka Bay, which not only holds the key position of the Inland Sea, but opens directly into the Pacific Ocean through the Kitan Strait. Kobe is only 16 miles west of the City. Kyoto lies 27 miles to the north, while the distance to Tokyo is 350 miles.

Harbour Area, Depth, and Port Entrances.

The breakwaters protecting the harbour are 8,687 metres long and the area of the protected water is 6,546,000 square metres. Maximum depth in the above area is 9 metres at mean low water. The opening between the northern and southern breakwaters is 182 metres at the sea floor and is the main entrance to the harbour. There is also a passage at the northern end of the harbour and another at the southern extremity. Both of these are for smaller vessels. The main entrance has lighthouses, one on each side. Another lighthouse is located at the Landing Pier. There are also two beacons in the lighter basin.

Tide and Sea-Bed.

Maximum high tide is +2.05 metres; average high tide, +1.44 metres; and minimum low tide, −0.59 metres.

The sea-bed is of mud and assures safe anchorage.

Anchor Buoys.

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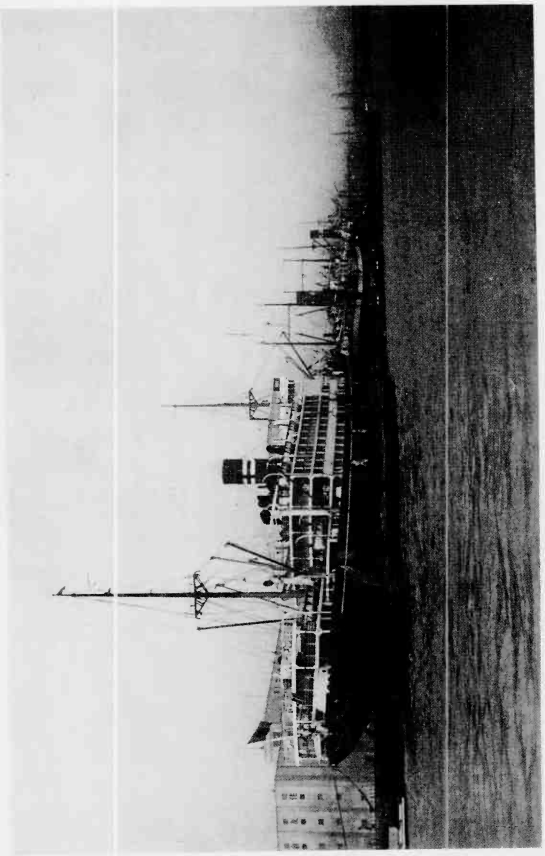


No. 1 Quay

The berthing capacities are as follows:

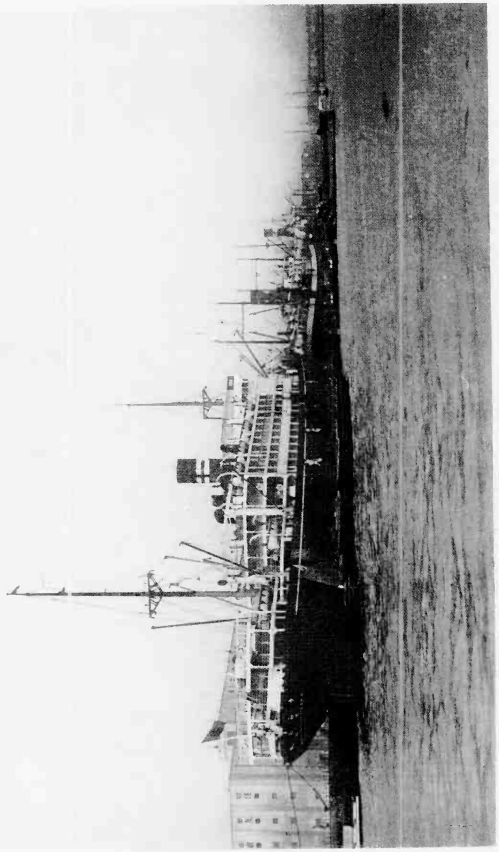
Number	Length (Metres)	Tonnage
South No. 1 to 8	183	15,000
South No. 9 to 13	146	10,000
South No. 14 to 17	122	6,000
Extra No. 1 to 4	198	20,000
North No. 1	128	7,000
North No. 2	128	7,000
North No. 3	128	7,000
North No. 4	128	7,000
North No. 5	128	7,000

Piers and Quays.

The present number and their capacity are shown in the following figures. In all, twenty ships of over 6,000 tons and four of 1,500 tons can be berthed alongside these piers and quays. The last three listed in the table are for coastwise vessels, but the others are capable of berthing the larger ships on foreign runs.

All these piers and quays are provided with sheds, warehouses, cranes, and railway connections, offering complete wharfing facilities. The Tempozan Pier is used exclusively for the coastwise passenger service. The Shirinashi South Quay is used specially for handling colliers. The Landing Pier is used both for passengers and cargo and is equipped for mooring on both sides.

Name	Length (Metres)	Height at L.W. (Metres)	Depth at L.W. (Metres)
No. 1 Quay	436	3.5	10
			9
No. 2 Quay	341	3.5	10
			9
No. 6 Quay	359	3.5	9
No. 7 Quay	359	3.5	9
Sakurajima No. 1 Pier	273	2.9	9
Sakurajima No. 2 Pier	364	3.5	9
Landing Pier	455	3.2	9.6
Tempozan Pier	177	2.6	6
Shirinashi South Quay	182	2.6	6



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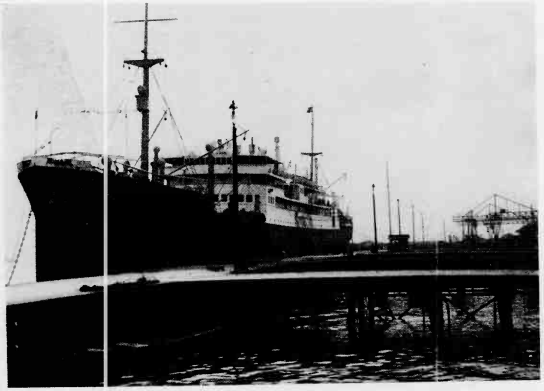

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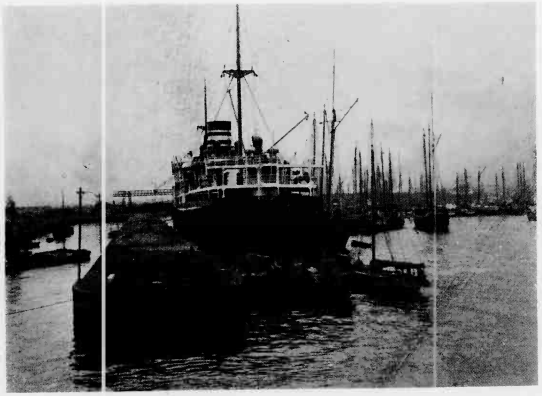


Sakurajima No. 2 Pier

Freight Landings and Lighter Basins.

Besides the piers and quays are numerous cargo landing places well equipped and protected for the loading and unloading of lighters and barges. The harbour is also provided with some lighter basins. The rivers and canals running through the city are all directly or indirectly connected with the harbour and they may be considered the extension of the port proper. The shores of these waterways are dotted with other landing places.

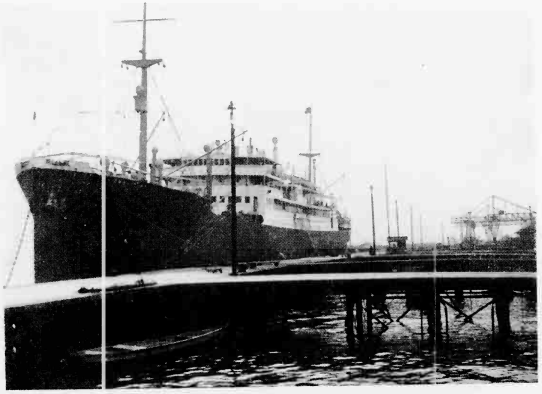
Towing, Mooring, Refuse Removing, and Water Supply Services.

The Municipality operates tug boats, large and small, and offers their service whenever required for berthing alongside, anchorage shifting, mooring, or removing refuse. The city is also prepared to supply fresh water to the ships in the harbour. The ships berthed alongside the piers and quays are supplied direct from the city water mains, while those moored off shore are provided through tankers and pumping-boats. These services offered by the municipal port authorities are proving popular among the ships touching at the city, not only on account of the efficient equipment, but because of the low cost and the accommodating attitude of the city employees in charge.

The municipality has also added two new large tugboats to its fleet. Both of these boats are equipped to aid ships in distress and to fight fires, and they are always ready to answer any emergency call.

Transit Sheds, Warehouses, and Cargo Handling Facilities.

The port is amply provided with cargo storage rooms. Along the piers, quays, and landing places are transit sheds and warehouses, the total capacity of which is quite sufficient to handle the huge movement of cargo through the port. Many of these are owned and operated by the city while others are run under private ownership.



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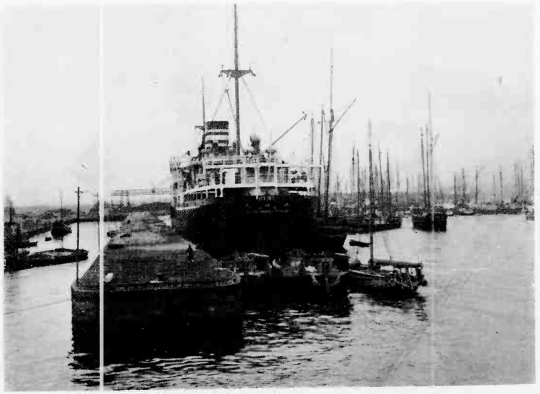

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Tempōzan Pier

A coaling depot in the Port

These sheds and warehouses are not confined in their location to the main wharves. On reclaimed land along the inner harbour and waterways are numerous private-owned storage houses.

Furthermore, the city, in order to cater to the traders in foreign goods, has created several bonded districts with ample berthing capacities and storing structures and grounds. A fixed rate is charged for the use of these districts.

There are many special storing places on the waterfront of the port as well on the banks of the rivers and canals in the city. These wharves and storage grounds are especially equipped to handle coal, timber, oil, explosives, etc.

All the quays and landing places, including those operated by private concerns, are equipped with several cranes, fixed or travelling. Beside these equipments on land, the Municipal Harbour Department has also floating cranes well to serve the ships. The charge for these cranes is very low.

The principal warehousing and stevedoring companies operating in Osaka are the Mitsubishi, Naniwa, Sugimura, Sumitomo, and Toshin warehouse companies; and the Taisho Unyu Company and the Tomishima Gumi, stevedores.

Railway Connections.

There are two feeder systems, connecting the Osaka waterfront with the trunk lines; one lies north of the Aji River, the other to the south.

(a) The first system is called the **Nishinari** Line. It terminates at Sakurajima, on the north shore of the Aji estuary, and connects with the main line at Osaka Station. It is 7.9 kilometres long. The Sakurajima No. 1 Pier and the landing places at the way points are served by this system. An extension to the Sakurajima No. 2 Pier is now almost completed, and the Sakurajima No. 4 Quay and its supplementary landing places will also be linked by this system.

(b) The southern system is called the **Rinko** Line. It starts from piers and quays south of the Aji River mouth, follows northward along the western bank of the Shirinashi Waterway, swings

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No. 7 Quay

Osaka Airdrome

to the right to cross both the Shirinashi and Kizu Rivers, and forms a fork with the main line at Imamiya Station, within the city. The distance between Imamiya and the end of the system is 8.5 kilometres. No. 5 Quay and No. 8 Quay will also be fed by this system.

International Airport.

The Osaka Airdrome is located just south of the harbour, along the mouth of the Kizu River. It is under the control of the Aviation Bureau of the Communications Office, and is equipped to accommohate both land and sea planes.

The central location of the City among the islands of the Japanese archipelago makes the airport a key point in the Empire's air routes, and already the Nippon Koku Yuso Kaisha (Japan Aerial Transportation Co., Ltd.) and the Nippon Koku Yuso Kenkyusho (Japan Aerial Transport Experiment Station) are operating regular passenger, mail, and freight services through Osaka. The present air routes with Osaka as a terminus or a stopping place are the Tokyo-Dairen, Tokyo-Osaka, Osaka-Shanghai, and Osaka-Matsuyama lines. The planes in the Shanghai service now fly only as for as Fukuoka, however.

Reclaimed Waterfront.

Practically all the waterfront tracts were reclaimed by the harbour construction program, the total area of which is 4,529,000 square metres. In addition, there are 423,000 square metres still under construction. Most of the newly formed land is retained by the City and is placed under the administration of the Municipal Harbowr Department.

The Municipality is convinced that the way in which the reclaimed land is used will have an important bearing on the future development of the Port, and the policy has been established to lay stress on the land's administration equal to that on the program of the port and terminal improvements. The City has not only built roads, bridges, water mains, and sewers for the reclaimed

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No. 8 Quay under construction

area, but has provided a network of canals, extended the municipal tram service to the waterfront, and linked the extensive tract by railway. Where the railway crosses the main canals, lifting bridges have been constructed in order not to obstruct the water-borne traffic below.

With regard to the use of the land, most of the waterfront tracts are utilized by the port authorities for sheds, warehouses, and storage grounds. Others are rented to private concerns at reasonable rates for general warehousing or special storing purposes, such as coal and oil, etc.

With due consideration to the future needs of the harbour, other tracts have been rented for factories, shops, and even residences. Due to this policy followed by the City, the southern waterfront, along the Kizu Canal is blossoming into an ideal industrial district. Other important uses to which the reclaimed land is being subjected include the sites of customs houses, an international airport, and the Agriculture and Forestry Office's

rice storehouses. Those tracts the location of which do not justify their holding by the City, have been sold at prices in line with the general land value at the time of the transaction and of the location of the land. There are more of these tracts subject to sale or rent and the Harbour Department is ready to open negotiations for any such transfer.

At present, the receipts from the rentals and sales of the reclaimed land total the largest revenue item for the Port of Osaka. Most of these receipts have been appropriated for the redemption and interest payment of the harbour bonds, though a portion has been transferred to the improvement accounts.

Further Inprovements Under Way.

The reclaimed land along the north bank of the Aji River is already put to its full use. In order further to improve this section of the harbour, a new construction project started in 1924 is now under way.

The north harbour project calls for the reclamation of the foreshore of the present reclaimed land and the extension of the area beyond the northern breakwaters. An inlet will be formed in the centre for docking. This plan calls for the reclamation of an additional 539,000 square metres. It will not be completed until 1935 although a part of the newly made land is already put to use. The dock in the centre will be 800 metres long, 220 metres wide, and will have a water depth of 9 metres. When completed, quays and freight landings for lighters will be built not only along the dock frontage but along the other protected shore line as well. The project further calls for another quay next to the present Sakurajima No. 2 Pier having a length of 518 metres and a depth of 9 metres, with several landing places for lighters. The last named improvements were recently started and they are expected to be completed within three years.

Another set of improvements is under way in the south harbour, although it was only a year ago that the existing waterfront there was completed. Work is now progressing on the construction of No. 5 Quay and No. 8 Quay 709 metres

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long in total with a water depth of 7.5 to 9 metres.

The south side project further calls for the creation of a channel, directly connecting the Kizu River with the harbour. In order to protect the mouth of the river, breakwaters 1,000 metres long are being constructed offshore. When this protective wall is completed, part of the present southern breakwaters will be removed in order to build the connecting channel. The project also calls for the deepening of the water in this new harbour section.

According to the present program, these projects in the south harbour will all be completed by 1935. Needless to say, the quays when ready for service will have side tracks, transit sheds, warehouses, and cargo handling facilities.

One more project under way is the building of raft grounds in the southern corner of the harbour to facilitate the storage and arrangement of logs and lumber coming into the port. This project is expected to be finished in the near future.

TABLE OF VARIOUS PORT CHARGES

Tonnage Dues.

The Municipality does not impose harbour dues on any ship or cargo entering the Port. The Customs Office, however, levies tonnage dues as a part of the national revenue. The tonnage dues are levied on all ships entering the open ports of the Empire from foreign ports with foreign merchandise at the rate of seven *sen* per ton on the registered tonnage of the ship. The national tax law, however, provides that if a ship pays 21 *sen* per ton on its registered tonnage in one payment, it will be exempted from further payment for the period of one year.
(Tonnage Dues Regulation, Article 1.)

Pilotage Rate.

For a vessel which is 1,000 gross tons or under, and the draught (deepest) of which is 10 feet or under, the pilot fee shall be paid according to the table hereto annexted to which 6% shall be added for every increase of 1,000 gross tons or a fraction thereof, and a further 6% for every additional foot of draught or a fraction thereof, above 10 feet.

Shifting berth in the harbour	¥25
Wada to Osaka, & v. v.	30
do. wharf in Osaka (including mooring), & v. v. .	35
do. buoys „ (including mooring fore & aft), & v. v.	35
Mooring or unmooring to or from wharf, vessel or huoys (fore & aft) in Osaka, & v. v.	30
Between Osaka and Tomogashima	45

Municipal Anchor Buoy Dues.

Vessels of less than	1,500 tons:	¥ 6 per 24 hours.
„ „	5,000 „	¥ 8 „
„ „	10,000 „	¥12 „
„ more than	10,000 „	¥18 „

Municipal Wharfage.

One *sen* per registered ton every 24 hours.
For regular liners, 20 percent discount.

Municipal Tugboat Charges.

(a) Towing to and from alongside or buoy moorings:
¥20 per assignment for one boat.

If an assignment require more than one hour, an overtime charge of ¥2 is imposed for every additional hour or fraction.

(b) For assignments other than (a):
¥20 per hour for one boat.
Overtime charges:
Up to 3 hours, ¥8 per 30 minutes or fraction.
„ 5 „ ¥7 „ „
„ 10 „ ¥5 „ „
Over 10 „ ¥3 „ „

(c) Rate of extra Charges:
Outside the office hours:
20-30 percent of regular dues.
Rough weather:
30 percent of regular dues.

Municipal Handling Charges for Mooring Lines.

Vessels up to	1,000 tons	¥ 1
„ „	2,000 „	2
„ „	4,000 „	5
„ „	7,000 „	8
„ „	10,000 „	12
„ over	10,000 „	17

Municipal Water Supply Charges.

(a) Direct from pipes extended to the piers and quays:
26 *sen* per cubic metre up to 50 cubic metres.
24 *sen* per cubic metre for supply exceeding the first 50 cubic metres.

(b) From tankers conveyed to the off shore moorings.
40 *sen* per cubic metre up to 50 cubic metres.
38 *sen* per cubic metre for supply exceeding the first 50 cubic metres.

(c) Extra charges.
(i) For transporting supply beyond the break-waters, 10 *sen* per cubic metre per mile.
(ii) During night hours or rough weather, 20 to 50 percent above regular charges.

Municipal Refuse Removing Charges.

¥1 per trip per barge.
¥0.50 per barge for additional trip.

Charges for Municipal Cranes.

Crane	Up to one hour	Per 30 minutes exceeding first 1 hour	Per 30 minutes exceeding first 3 hours	Per 30 minutes exceeding first 5 hours
1½ tons travelling	¥ 2.00	¥ .90	¥ .70	¥ .50
2 tons "	3.00	1.30	1.10	.90
3 tons fixed	3.50	1.40	1.20	1.00
35 tons "	19.50	8.50	6.50	4.50
10 tons floating	15.00	6.50	6.00	5.00
20 tons "	25.00	11.00	10.00	8.00

Municipal Storage Charges in Bonded Sheds or Premises.

(a) By weight or measurement of cargo.
(i) Metals, ores, and metallic manufactures.
Per or up to 500 lbs.
1 *sen* per day up to 15 days.
2 *sen* „ from 16th day.
(ii) Others.
Per or up to 10 square feet.
1 *sen* per day up to 15 days.
2 *sen* „ from 16th day.

(b) For reserved space.

¥3 or under per *tsubo* per month.

Sampans.

Landing Pier to vessels within harbour 15 to 16 *sen* per passenger, one way.

" " " ¥1.20 per boat, one way.

" " " ¥2.00 per boat, round trip.

The sampans and motorboats may be hired at moderate rate.

Tallyman's Rates.

Per day: ¥3.00 to ¥3.80.

Per ton: 10 *sen*.

Landing Rates.

	Description	Per	Yen	Sen
Class A	... ...	Ton Meas'm't or Weight	2	00
Class B	... ...	Ton Meas'm't or Weight	1	75

Class A: General goods.

Class B: Beans, manures, gypsum, pressed cotton, etc.

Heavy or Bulky Goods	Yen	Sen
In package up to 2 tons	2	60
" " 3 "	3	20
" " 3—4 "	3	70
" " 4—5 "	5	00
" over 5 tons (every additional) 1 ton		70

Descripton	Per	Yen	Sen
Antimony	Ton weight	2	50
Bamboo husk	" meas'm't	1	50
Beef fresh (under 300 pieces)	Piece		30
" (over 300 pieces)	"		25
Brass	Ton weight	2	50
Bristle	" meas'm't	4	00
Cane	" weight	2	60
Charcoal from China	"	2	40
Cocoon	" meas'm't	3	10
Coir fiber	"	1	80
Cotton fly	" weight	3	80
" raw	"	3	80
" pressed	See Class B		
" piece goods	Ton meas'm't	2	30
" yarn	"	2	30
" " waste	" weight	3	80
Copper	"	2	50
Eggs (China in kerosene cases)	" meas'm't	2	20
Fur	" meas'm't or weight	3	10
Fish (fresh)	"	3	30
Glass window	Ton weight or meas'm't	2	50
" plate	" weight	2	50
Hemp	"	2	60
Hide dried	"	3	00
" salted	"	4	50
Human hair	Ton meas'm't	4	00
Iron (under 30 ft.)	" weight	2	40
" (under 40 ft.)	"	3	10
" (under 50 ft.)	"	3	90
" (over 50 ft.)	"	4	80
Iron black sheets (in case or crate)	"	2	50
Iron sheets (in piece or bundles)	"	2	50
Iron pig	"	1	80
Jute	"	2	60
Mats	Ton meas'm't	1	50
" rush	"	1	50
Manganese	" weight	1	80
Medicine from China	" meas'm't or weight	2	60
Nail (100 lbs.)	Keg		15
Quick silver 15 kan	Flask		35
Rattan	Ton weight	2	60
Ramie	"	2	60
Silk goods	" meas'm't	3	10
" thread	"	3	10
" wild	"	3	10
Skin	" meas'm't or weight	3	10
Straw braid	" meas'm't	1	80
Tin plate or sheets	" weight	2	50
Treasure up to ¥5,000 minimum	Case	3	50
" over ¥5,000 every additional ¥1,000	"		50
Varnish (Chinese)	Ton meas'm't	2	80
Valuables (under ¥1,500)	Package	3	30
Valuable (over ¥1,500 an additional 1/10%)	ad valorem		
Wire	Ton weight	2	50
Wood (Ebony, black, red, rose, etc.)	"	3	70
Wood soft	Ton meas'm't	2	10
Wood from America	" B.M. (480)	2	50
Zinc	" weight	2	50

Goods in Small Quantities General Landing, 1 Bill of Landing ¥0.75.

SHIPPING AND TRADE VOLUME THROUGH OSAKA

In introducing the various tables showing the development of the shipping and trade through Osaka, the following explanation of the outstanding points may be given.

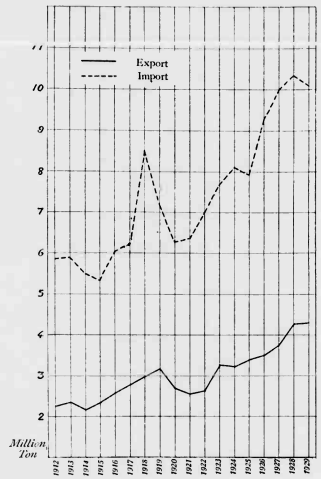
Altogether 17,203 steamers entered the Port of Osaka in 1929, with their aggregate tonnage figuring up to 24.898,000. Compared with 1912, 76 percent increase has been made in the number of steamers, while in total tonnage the 1929 figure is more than four times that of 1912. The improvement of the harbour, enabling the entrance of larger vessels is responsible for this increase in tonnage. Again in 1929, the number of the steamers entering from foreign ports totalled 2,240 for 9,811,000 tons. They represent an ten fold increase in the number of steamers while the tonnage is 16 times greater than the 1912 record.

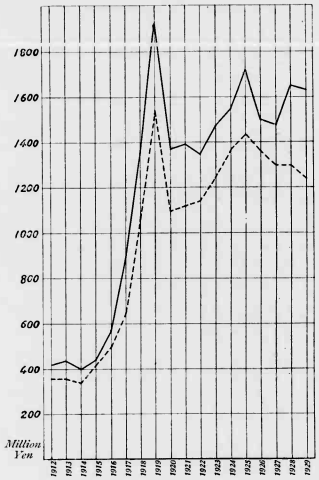
The cargo handled by the port in 1929 amounts to 14,354,-000 tons valued at ¥2,873,000,000. It represents domestic merchandise of 10,143,000 tons valued at ¥1,825,000 and foreign cargo of 4,211,000 tons for ¥1,048,000,000. These figures compared with older ones show that although the domestic trade through the port has increased rapidly, the foreign trade has shown still more remarkable strides.

Comparison with other ports in Japan may also be of interest. According to the statistics gathered by the Finance Office, the valuations of foreign trade handled by the custom houses in 1929 are given as ¥762,264,000 for Osaka, ¥1,584,224,000 for Kobe, and ¥1,364,317,000 for Yokohama. Compared with the 1912 figures for the respective ports, they show an increase by 3.5 times for Kobe, 2.9 times for Yokohama, and an outstanding increase by 9.1 times for Osaka. Again in 1912, the foreign trade through Osaka amounted to only 7.3 percent of the national total. In 1929, Osaka handled 17.5 percent of the total. The foregoing data indicate a bright future for the port, especially in view of the fact that the harbour improvement is now completed.

A further analysis of the trade through the port shows that in 1929 the outbound cargo amounted to 4,272,000 tons valued at ¥1,637,000,000 and the inbound cargo 10,082,000 tons valued at ¥1,235,000,000. Thus in tonnage, the imports were greater, but a favourable trade balance is recorded in valuation. The imports are mainly made up of raw material, unfinished products, and foodstuffs for the great industrial area to which the port is a gateway, while the exports chiefly consist of the finished products from this area, showing that Osaka is a true industrial port.

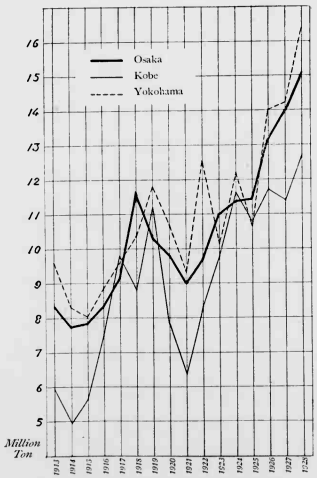
Tonnage and Value of Merchandise Handled at the Port of Osaka

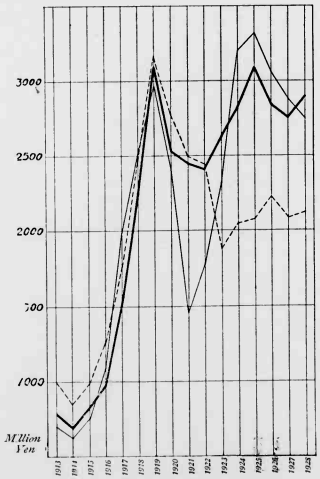




Tonnage and Value of Merchandise Handled at the Three Largest Ports in Japan.

(According to the Home Office Statistics)





Number and Tonnage of Vessels Calling at Osaka

Year	Number	Index No.	Gross Tonnage	Index No.
1912	123,124	100	8,368,956	100
1913	116,160	95	8,918,494	107
1914	111,439	91	9,509,808	114
1915	115,067	94	10,017,242	120
1916	129,684	106	10,127,435	121
1917	135,253	111	9,950,212	119
1918	159,166	130	10,257,462	123
1919	151,691	124	11,223,684	134
1920	177,196	145	12,207,744	146
1921	170,704	140	13,595,080	162
1922	176,367	144	15,963,991	192
1923	181,669	149	19,331,580	231
1924	181,105	148	22,224,725	266
1925	173,981	142	22,506,186	269
1926	183,857	150	24,545,456	293
1927	178,633	146	25,460,138	304
1928	181,279	147	27,007,992	323
1929	181,681	147	28,943,392	345

Vessels Classified

Year	Steamers		Sail Ships & Lighters	
	Number	Tonnage	Number	Tonnage
1912	9,726	5,423,577	112,398	2,945,379
1913	9,495	6,003,407	105,665	2,915,087
1914	9,869	6,740,030	101,570	2,769,778
1915	10,451	7,134,423	104,606	2,882,819
1916	10,609	6,804,598	119,075	3,322,837
1917	10,525	6,531,750	124,728	3,418,462
1918	10,052	6,242,587	149,114	4,014,875
1919	10,657	7,205,075	141,034	4,017,609
1920	10,811	7,739,378	166,385	4,468,366
1921	10,854	9,341,618	159,850	4,253,467
1922	11,638	11,805,487	164,729	4,158,504
1923	12,766	15,321,768	168,903	4,009,812
1924	13,547	18,178,531	167,558	4,046,194
1925	13,756	18,572,492	160,225	3,933,694
1926	14,732	20,477,331	169,125	4,068,125
1927	15,526	21,443,523	163,107	4,016,615
1928	16,498	22,970,490	164,781	4,037,502
1929	17,203	24,898,760	164,478	4,044,632

Steamers Classified - Foreign and Domestic Routes

Year	Foreign Routes		Domestic Routes	
	Number	Tonnage	Number	Tonnage
1912	230	594,444	9,496	4,829,133
1913	295	830,943	9,200	5,172,464
1914	451	1,172,760	9,418	5,567,270
1915	569	1,546,247	9,892	5,588,176
1916	487	1,268,748	10,122	5,535,850
1917	447	1,106,526	10,078	5,425,224
1918	499	1,152,288	9,553	5,090,299
1919	626	1,418,624	10,031	5,786,451
1920	686	1,685,182	10,125	6,054,196
1921	840	2,177,128	10,014	7,164,490
1922	984	3,034,726	10,654	8,770,761
1923	1,192	4,287,788	11,574	11,033,980
1924	1,414	5,766,755	12,133	12,411,776
1925	1,381	5,927,058	12,375	12,645,434
1926	1,516	6,725,567	13,216	13,751,764
1927	1,607	6,778,429	13,919	14,665,094
1928	1,834	7,848,217	14,664	15,122,273
1929	2,240	9,811,846	14,963	15,036,914

Foreign and Domestic Steamers

Year	Foreign		Domestic	
	Number	Tonnage	Number	Tonnage
1912	18	84,442	9,708	5,339,135
1913	33	148,362	9,462	5,855,045
1914	33	136,937	9,836	6,603,093
1915	37	100,187	10,424	7,034,236
1916	52	127,470	10,557	6,677,128
1917	33	79,192	10,492	6,452,558
1918	33	46,680	10,019	6,195,907
1919	31	82,427	10,626	7,122,648
1920	15	62,707	10,796	7,676,671
1921	28	93,170	10,826	9,248,448
1922	66	294,053	11,572	11,511,434
1923	168	882,141	12,598	14,439,627
1924	315	1,620,460	13,232	16,558,071
1925	212	1,324,139	13,544	17,248,353
1926	295	1,794,282	14,437	18,683,049
1927	253	1,534,435	15,273	19,909,088
1928	278	1,646,681	16,220	21,323,809
1929	338	1,931,309	16,865	22,967,451

Total Tonnage and Value of Merchandise Handled at the Port of Osaka

Year	Tonnage	Index No.	Value in Yen.	Index No.
1912	8,142,058	100	774,450,463	100
1913	8,296,745	102	801,823,025	104
1914	7,669,595	94	745,833,212	96
1915	7,675,012	94	857,869,475	111
1916	8,575,369	105	1,074,944,356	139
1917	9,001,803	111	1,553,302,098	201
1918	11,497,229	141	2,415,562,655	312
1919	10,312,268	127	3,459,913,256	447
1920	8,943,729	110	2,476,049,569	320
1921	8,927,868	110	2,514,220,775	325
1922	9,631,431	118	2,492,627,582	322
1923	10,960,493	135	2,717,063,540	351
1924	11,324,231	139	2,928,025,167	378
1925	11,353,543	139	3,156,621,538	408
1926	12,764,450	157	2,870,002,214	371
1927	13,770,826	169	2,770,731,821	358
1928	14,633,764	180	2,950,787,436	381
1929	14,355,237	176	2,873,082,092	371

Imports and Exports

Year	Exports		Imports	
	Tonnage	Value in Yen	Tonnage	Value in Yen
1912	2,265,972	414,275,785	5,876,086	360,174,678
1913	2,375,993	441,639,240	5,900,752	360,183,785
1914	2,163,535	403,658,541	5,506,060	343,174,671
1915	2,332,270	443,060,810	5,342,742	414,808,665
1916	2,561,024	574,817,196	6,014,345	500,127,160
1917	2,809,741	906,486,399	6,192,062	646,815,699
1918	2,989,450	1,338,613,128	8,507,779	1,076,949,527
1919	3,161,464	1,918,912,106	7,150,804	1,541,001,150
1920	2,692,711	1,373,831,976	6,251,018	1,102,217,593
1921	2,555,470	1,394,592,791	6,372,398	1,119,627,984
1922	2,637,569	1,348,218,446	6,993,912	1,144,409,136
1923	3,258,771	1,474,279,615	7,701,722	1,242,783,925
1924	3,204,437	1,553,512,946	8,119,794	1,374,512,221
1925	3,404,115	1,720,256,224	7,949,428	1,436,365,314
1926	3,495,627	1,504,043,103	9,268,823	1,365,959,111
1927	3,765,226	1,472,887,133	10,005,600	1,297,844,688
1928	4,261,025	1,655,691,680	10,372,739	1,295,095,756
1929	4,272,480	1,637,622,518	10,082,757	1,235,459,534

Tonnage and Value of Foreign Trade Merchandise

Year	Tonnage		Value in Yen	
	Export	Import	Export	Import
1912	515,358	1,058,329	143,765,052	146,502,350
1913	622,451	1,120,463	171,774,324	145,803,651
1914	571,061	1,105,458	161,220,607	124,339,306
1915	725,371	896,405	191,502,252	153,100,286
1916	835,460	1,038,431	206,077,955	199,127,045
1917	981,122	925,933	438,028,578	276,758,447
1918	1,171,385	1,120,855	716,790,535	448,043,622
1919	1,141,323	1,156,867	961,278,762	550,720,995
1920	960,361	1,121,445	694,031,651	296,853,515
1921	709,050	1,251,799	563,731,384	272,907,222
1922	766,862	1,719,596	532,879,213	299,403,315
1923	715,405	2,266,560	498,569,553	329,631,115
1924	782,569	2,652,499	630,360,432	441,266,516
1925	849,492	2,341,577	703,933,592	457,924,894
1926	829,496	2,697,232	556,369,201	390,673,429
1927	850,831	2,972,770	495,371,931	374,040,281
1928	944,097	3,075,403	579,937,236	412,423,516
1929	1,006,228	3,205,383	623,924,641	424,112,721

Foreign Trade Merchandise Classified

(Statistics for 1929)

Class	Tonnage		Value in Yen	
	Export	Import	Export	Import
Foodstuff	71,854	157,765	14,790,850	28,932,482
Raw material	53,073	2,154,746	8,215,156	209,520,056
Unfinished goods	193,444	729,299	99,873,631	105,727,437
Finished goods	687,745	96,699	501,016,896	70,573,760
Others	107	66,874	28,103	9,358,926
Total	1,006,228	3,205,383	623,924,641	424,112,721

Comparison with the Principal Ports of Japan

(Extract from the Home Office Statistics for 1928)

Port	Merchandise Handled at		Vessels Called at	
	Tonnage	Value in Yen	Number	Registered Tonnage
Yokohama	16,360,288	2,141,786,820	98,584	15,776,933
Osaka	**15,103,824**	**2,905,771,071**	**181,434**	**17,997,879**
Wakamatsu	14,654,275	292,647,382	70,527	7,514,111
Kobe	12,634,734	2,749,047,475	78,853	25,020,908
Tokyo	7,969,676	1,277,319,136	8,976	2,281,342
Moji	6,985,350	650,404,826	151,486	29,091,375
Nagoya	5,250,009	305,611,360	37,466	5,557,084
Hakodate	3,982,519	519,883,296	23,560	5,063,620
Muroran	2,832,819	119,138,281	5,413	2,813,774
Otaru	2,791,550	260,435,002	10,574	7,371,661
Shimonoseki	2,465,980	460,230,834	247,992	16,337,626

PRINCIPAL FOREIGN PORTS OF SHIPMENT AND DESTINATION

(Statistics for 1929)

Port	Tonnage	Value	Principal Articles (E. exported from Osaka / I. imported to Osaka)
		Yen	
Dairen	887,878	157,209,619	E. Tissues of Cotton, Iron Mfctrs., Iron & Steel. I. Coal, Iron & Steel, Pebble & Sand.
Seattle	395,557	12,791,360	E. Vegitable Manures, Brush, Copper. I. Lumber, Iron & Steel, Wheat.
Shanghai	283,979	165,618,441	E. Tissues of Cotton, Papers, Sugar. I. Cotton Seed, Forages, Vegitable Manures.
Vancouver	274,698	19,775,327	E. Glass & Glass Mfctrs., Brush. I. Lumber, Metals, Wheat.
Calcutta	274,210	63,985,933	E. Tissues of Cotton, Glass & Glass Mfctrs. I. Iron & Steel, Seeds & Saplings, Cotton Seed.
Grays Harbor	129,326	2,457,194	E. ..... I. Lumber.
Tsingtao	125,846	43,223,946	E. Tissues of Cotton, Iron & Steel, Sugar. I. Forages, Salt, Coal.
Tientsin	116,441	60,230,350	E. Tissues of Cottor, Sugar, Papers. I. Chemicals (industrial use), Raw Cotton, Cotton Seed.
Bombay	112,367	94,868,725	E. Tissues of Cotton, Glass & Glass Mfctrs., Cotton Yarns. I. Raw Cotton, Iron & Steel, Vegitable Manures.
Vladivostock	90,091	2,788,146	E. Iron & Steel, Rags & Wastes. I. Lumber, Forages, Vegitable Manures.
Hangkow	81,241	18,241,244	E. Tissues of Cotton, Sugar, Sea-Weed. I. Cotton Seed, Vegitable Manures, Forages.
Hongkong	69,869	31,680,190	E. Tissues of Cotton, Cement, Cotton Yarns. I. Iron & Steel, Lumber, Pebbles & Sands.
Portland	67,950	2,414,293	E. Vegitable Manures. I. Lumber, Iron & Steel, Raw Cotton.
Tampa	58,941	1,364,598	E. ..... I. Ores, Wax.
Kosseir	58,008	1,218,168	E. ..... I. Ores.
Surabaya	57,122	21,999,775	E. Tissues of Cotton, Glass & Glass Mfctrs., Iron Mfctrs. I. Sugar, Meals & Flours, Iron & Steel.
San Francisco	56,304	9,976,507	E. Vegitable Manures, Vegitable Oil, Copper. I. Mineral Oil, Rice, Iron & Steel.
Antwerp	48,629	5,609,941	E. Vegitable Oil, Knitted Goods & Towells, Wood Mfctrs. I. Iron & Steel, Glass & Glass Mfctrs., Wires.
Hongay	48,413	655,487	E. ..... I. Coal.
Yingkow & Newchang	45,074	13,422,951	E. Tissues of Cottor, Iron & Steel, Chemicals (industrial use) I. Ores, Cotton Seed, Iron & Steel.
Galveston	42,484	35,101,303	E. ..... I. Raw Cotton, Lumber, Iron & Steel.
London	40,806	23,045,511	E. Knitted Goods, Ores, Copper. I. Iron & Steel, Tissues of Wool, Metals.
Batavia	40,103	17,746,527	E. Tissues of Cotton, Glass & Glass Mfctrs., Iron Mfctrs. I. Meals & Folurs, Sugar, Iron & Steel.
San Pedlo	37,875	5,668,355	E. Vegitable Manures, Vegitable Oil, Iron Mfctrs. I. Mineral Oil, Chemicals (industrial use), Raw Cotton.
Tacoma	36,467	2,876,107	E. Copper, Vegitable Manures, Toys. I. Lumber, Copper, Raw Cotton.
Rangoon	34,822	21,576,802	E. Tissues of Cotton, Glass & Glass Mfctrs., Cement. I. Raw Cotton, Metals, Iron & Steel.
Chinwangtao	33,113	530,452	E. Sugar, Copper, Iron & Steel. I. Coal, Glass & Glass Mfctrs., Vegitable Manures.
Coosbay	31,959	626,888	E. ..... I. Lumber, Iron & Steel,
Singapore	31,747	17,059,209	E. Glass & Glass Mfctrs., Iron Mfctrs., Tissues of Cotton. I. Meals & Flours, Metals, Gam & Gam Mfctrs.
Manila	30,768	5,043,933	E. Glass & Glass Mfctrs., Iron Mfctrs., Chemicals (industrial use) I. Lumber, Iron & Steel, Ramie.
New York	30,482	8,935,835	E. Vegitable Oil, Copper, Brush. I. Iron & Steel, Ores, Chemicals (industrial use)
Hamburg	28,198	9,096,272	E. Copper, Rags & Wastes, Fish Oil. I. Wires, Iron & Steel, Salt.
Samarang	25,385	13,135,731	E. Tissues of Cotton, Glass & Glass Mfctrs., Iron Mfctrs. I. Iron & Steel, Sugar, Grains,
Sydney	22,856	15,798,383	E. Glass & Glass Mfctrs, Rags & Wastes, Tissues of Cotton. I. Feathers, Wax, Metals.
Rotterdam	16,960	4,081,924	E. Wood Mfctrs., Rags & Wastes. I. Metal Wires, Iron Pipe, Iron Mfctrs.
Mombasa	16,605	7,371,184	E. Tissues of Cotton, Cement, Iron Mfctrs. I. Chemicals (industrial use) Raw Cotton.
Karachi	16,325	14,070,436	E. Tissues of Cotton, Glass & Glass Mfctrs., Knitted Goods. I. Raw Cotton, Lumber.
Makatea Island	16,226	600,306	E. ..... I. Ores, Forages.
Melbourne	15,808	10,387,220	E. Glass & Glass Mfctrs., Paints, Iron Mfctrs. I. Metals, Feathers, Wheat.
New Orleance	15,748	13,076,046	E. Lumber. I. Raw Cotton, Iron & Steel, Meals & Flours.
Colombo	15,738	9,546,984	E. Glass & Glass Mfctrs. Tissues, of Cotton, Knitted Goods. I. Raw Cotton, Vegitable Manures, Bean Cake.
Bangkok	14,823	4,645,493	E. Iron Mfctrs., Glass & Glass Mfctrs., Tissues of Cotton. I. Rice, Lumber, Grains.
Balikpapan	14,698	2,298,901	E. Glass & Glass Mfctrs., Brush, Rags & Wastes. I. Lumber, Wax, Iron & Steel.
Swansea	13,111	1,236,797	E. Iron Mfctrs. I. Iron & Steel, Metals, Wax.
Khanhhoa	12,280	159,640	E. ..... I. Coal.
Victoria	11,857	442,542	E. ..... I. Lumber, Pulp.
Hai-phong	11,393	752,242	E. Tissues of Cotton, Knitted Goods & Towells. I. Coal, Metals, Iron & Steel.
Port Said	10,478	5,170,154	E. Tissues of Cotton, Glass & Glass Mfctrs., Toys. I. Iron & Steel, Raw Cotton, Coal.

PRINCIPAL ARTICLES OF FOREIGN TRADE

(Statistics for 1929)

Articles			Tonnage	Shipping Ports or Destinations and Tonnage
Export	Food-stuffs	Sugar	37,170	Shanghai 10,294: Tsingtao 8,784: Tientsin 7,104.
		Fruits	7,214	Dairen 6,551: Tsingtao 569.
		Salted Fish	3,799	Dairen 3,773.
		Sea Weeds	3,282	Shanghai 1,163: Dairen 923: Hangkow 450.
		Meals & Flours	2,759	Dairen 953: Tsingtao 903: Antung 414.
	Raw materials	Rags & Wastes	21,102	Dairen 11,335: Tsingtao 4,615: Sydney 1,065.
		Lumber	17,446	Dairen 14,581: Tsingtao 2,063.
		Raw Cotton	6,400	Shanghai 3,175: Tsingtao 2,121: Dairen 909.
	Unfinished Articles	Iron & Steel	40,880	Dairen 19,623: Tsingtao 9,840: Tientsin 4,230.
		Cotton yarns	28,000	Bombay 10,622: Dairen 5,766: Hongkong 2,810.
		Chemicals (industrial use)	25,701	Shanghai 7,417: Dairen 4,509: Tsingtao 3,011.
		Cement	16,731	Hongkong 9,583: Rangoon 2,268: Mombasa 1,234.
		Paints	12,178	Dairen 4,590: Calcutta 1,854: Tsingtao 1,043.
	Finished Articles	Tissues of cotton	313,948	Shanghai 98,972: Dairen 27,693: Bombay 26,073.
		Glass & Glass mfctrs.	97,008	Calcutta 15,602: Bombay 11,509: Batavia 10,174.
		Iron mfctrs.	61,829	Dairen 21,806: Shanghai 6,171: Calcutta 4,119.
		Papers	37,491	Shanghai 12,775: Dairen 11,308: Tientsin 5,399.
		Knitted goods & Towels	24,013	Calcutta 6,859: Dairen 4,000: London 2,444.
	Others	Seeds & Saplings	68	Calcutta 30: Tientsin 17: Dairen 16.
		Cattles	29	Shanghai 29.
Import	Food-Stuffs	Meals & Floures	27,454	Surabaya 6,089: Batabia 5,203: Singapore 4.945.
		Sugar	16,709	Surabaya 6,475: Batavia 4,203: Probalinggo 2.225.
		Soja-Bean	15,256	Dairen 14,765: Tsingtao 217.
		Salt	14,943	Tsingtao 9,964: Hamburg 2,826: Dairen 2,153.
		Grains	13,108	Dairen 5,453: Surabaya 1,465: Tientsin 1,131.
	Raw Materials	Lumber	1,038,194	Seattle 362,319: Vancouver 233,825: Grays Harbor 129,326.
		Coal	604,650	Dairen 472,539: Hongay 48,392: Chinwangtao 32,669.
		Ores	179,056	Kosseir 58,008: Tampa 56,799: Yingkow & Newchwang 14,569.
		Raw cotton	145,344	Bombay 42,735: Galveston 39,115: New Orleans 14,304.
		Cotton seed	89,231	Hangkow 48,389: Shanghai 18,102: Dairen 9,097.
	Unfinished Articles	Iron & Steel	449,717	Calcutta 197,577: Dairen 48,650: Antwerp 40,640.
		Metals	71,418	Vancouver 28,287: Hobart 5,406: Melbourne 4,965.
		Mineral oil	65,015	San Francisco 31,450: San Pedro 29,572.: Seattle 750.
		Chemicals (industrial use)	39,261	Mombasa 9,606: Tientsin 8,851: New York 3,326.
		Vegitable Manures,	25,820	Shanghai 9,787: Hangkow 5,408: Dairen 3,185.
	Finished Articles	Wires	22,371	Hamburg 9,014: Rotterdam 5,333: Antwerp 2,789.
		Iron Pipes	13,626	Rotterdam 3,674: Cleveland 2,860: New York 1,843.
		Iron Manufactures	13,073	Rotterdam 3,468: New York 2,350: Amsterdam 1,184.
		Glass & Glass mfctrs.	8,730	Antwerp 2,930: Dairen 2,654: Marseilles 1,460.
		Chemicals	8,360	Dairen 1,816: Yingkow & Newchwang 1,368: Shanghai 1,199.
	Others	Forages	46,564	Tsingtao 13,485: Dairen 11,750: Shanghai 10,943.
		Seeds & Saplings	20,310	Calcutta 8,815: Dairen 7,358: Shanghai 1,869.

GROWTH OF OSAKA

Location

Osaka's great asset is its favourable geographical location. This largely explains why the Port has made such remarkable progress. The city is situated in the central part of the islands forming the Empire, giving it an advantage in the matter of transportation such as is posessed by no other city in Japan.

Communication

Osaka is the hub of the railway network in the western part of the main island, especially noted for its development of electric railways. They radiate from the metropolis to the surrounding cities and towns as in no other urban district. As has been already disclosed, this huge "steel web" to the surrounding country is connected with the Harbour by direct lines.

With the establishment of the airport in Osaka, the City is becoming an aerial centre of Japan.

Osaka is also blessed in the matter of waterways. The City first rose on the delta of the Yodo River, and although from olden days it suffered from many floods, the river also proved vital in promoting the growth of the city. The Aji, Kizu, Shirinashi and other branches of the Yodo River flow through the city, forming many waterways. Added to these are the canals. The City contains a network of waterways in every direction and practically all the principal factories, warehouses, markets, and railway stations have waterways extending to their very walls. These numerous canals explain the development of lighter borne transportation in the port city.

Hinterland of the Port

Osaka now has an area of 185 square kilometres. The population of the city on October 1, 1930, was registered at 2,450,000 and it is growing rapidly. Traders and industrialists form the backbone of the city, making Osaka one of the chief domestic and foreign trade ports of the Empire and the greatest manufacturing centre of the Far East.

The suburbs of Osaka as well as the neighbouring prefectures are also thickly populated and are considered an extension of

Osaka in forming a great producing centre. The concentrated population in this great area gives the Osaka Port great potentiality, not only in handling the area's raw materials and foodstuffs, but also in taking care of its finished products. To this area, of which Osaka is the gateway, may also be added the whole Inland Sea district, for the port plays an important role in fulfilling the needs of the people along that district's shores.

Commerce

The industrial and commercial development of the City, inseparably related to the growth of the Port, may further be illustrated by the following recent statistics.

At the end of 1928, there were 4,922 corporations with their main offices located in the city. Their aggregate authorized capitalization amounted to ¥3,156,000,000 and their paid up capital ¥2,252,000,000. Among these companies were 2,677 which may be classified as commercial concerns, embracing the mercantile, warehouse, banking, trust, insurance, and trading companies. The authorized capitalization of these corporations was

The Upper Aji River

Nakanoshima Park

¥1,533,000,000 with ¥1,070,000,000 paid up.

There were also 258 main and branch offices of banks within the city at the end of 1928. Their total deposits, at the time of the investigation, amounted to ¥1,682,000,000 and the loans to ¥1,714,000,000. The total deposits handled by these banks during the year were found to be ¥26,684,000,000 and the loans advanced during the same period ¥22,456,000,000. During 1928, the Osaka Clearing House handled 10,009,000 cheques amounting to ¥21,684,000,000.

Again at the end of 1928, there were 804 commercial warehouses in the city with the total floor space of 122,500 *tsubo*. The five largest warehouse companies, controlling the greater portion of this huge storing capacity, received for storage ¥516,000,000 worth of goods and checked out goods valued at ¥523,000,000 during 1928. At the end of the year, these warehouses held in store goods worth ¥122,000,000.

There are four exchanges in Osaka which play an important part in the economic life of the City. The first is the Osaka

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Stock Exchange, which with the Tokyo Stock Exchange, is one of the two greatest stock exchanges in Japan. The next is the Dojima Rice Exchange of Osaka which is the oldest in Japan, and which has held the key position in the national rice market from the historic past. The third is the Osaka Sampin Exchange, the influence of which can be judged by the fact that Osaka is the centre of the cotton industry in Japan. The fourth is the Osaka Sugar Exchange which was established in 1925 and is the only sugar exchange existing in the country.

The records show that during 1928, the number of shares bought and sold in the Osaka Stock Exchange numbered 32,143,000, the amount changing hands being ¥4,434,000,000. Of the other three markets, the rice exchanged totalled 59,406,000 *koku* for ¥1,848,000,000; the cotton yarn, 8,453,000 packs for ¥1,963,000,000; raw cotton, 2,646,000 bales for ¥614,000,000; and sugar, 10,059,000 bags for ¥186,000,000. It may be noted here that with the exception of raw cotton, the foregoing figures show a slight decline in comparison with their corresponding records of the preceding year, owing to the general business depression.

Industry

Osaka, while it is the leading commercial centre of the country, is also its greatest industrial city. At the end of 1928, there were 30,631 factories in the city. They were made up of 5,262 plants employing more than five hands and 25,369 employing less than five. The total number of the factory hands in the first group was 159,574 with 21,943 in the smaller factories, while the grand total was 181,517 industrial workers.

During 1928, the 5,262 factories employing more than five hands, turned out products valued at ¥957,106,000. Among them, those manufacturing machinery and implements came first with ¥318,174,000 production (33% of the total). Following in the order named came the dyeing plants with ¥217,693,000 (23%); chemical industries with ¥195,742,000 (21%); miscellaneous factories with ¥123,512,000 (13%); food and beverage factories with ¥69,882,000 (7%); and special technical works with ¥32,103,000 (3%).

More detailed classification of these factories shows that those turning out steel products had an output of ¥68,000,000; cotton spinning mills, ¥55,000,000; printing and bookbinding shops, ¥49,000,000; cotton weaving mills, ¥39,000,000; other weaving mills, ¥35,000,000; auto and bicycle plants, and iron casting works, ¥34,000,000 respectively; yarn and cloth dyeing factories, ¥31,000,000; machinery works, and sugar plants ¥28,000,000 respectively; medical appliance and drug manufactories, ¥28,000,000; and hosiery mills, ¥26,000,000.

Finally in 1926, there were 51,906 factories with in the Empire employing more than five workers. In the same year, Osaka had 4,600 such plants or 9 percent of the national total. Tokyo in the same year, had 3,565 factories of this class or 7 percent of the total. There were 1,875,000 workers employed in these plants through out the country in 1926, and Osaka led the list with 156,000 or 8 percent of the total. Tokyo came next with 74,000 or 4 percent. These plants, within the Empire in the same year, had an output of ¥7,154,000,000. In the valuation of the production, Osaka again headed the list with ¥896,000,000 which is 12 percent of the national total. Tokyo followed with ¥368,000,000 or 5 percent.

FAMOUS PLACES IN AND AROUND OSAKA

The entire Kinki district, embracing the neighbouring prefectures with Osaka as the centre, is richly dotted with places of historical importance. In this respect, it stands head and shoulders above all other localities in Japan. Especially is this true in the case of Kyoto, Nara, and their surrounding territory. Osaka is connected with these famous spots with modern rapid transit facilities, and most of the places can be reached from the city within an hour or so. The following brief notes are added here by way of introducing some of these tourists' "hunting grounds" within and around Osaka, and also along the Inland Sea.

IN OSAKA:

Osaka Castle. Built some 350 years ago by Toyotomi Hideyoshi as his permanent stronghold in bringing to an end the long civil strife. In massiveness, it has no equal in the ancient Japanese castle architecture. The old grandeur is now gone, due to the destruction wrought by its many besiegers and only the centre portion remains with any semblance of its ancient impressiveness. Yet what remains is sufficient to give a visitor an idea of the huge scale of the fortification which once surrounded the present remains. It has 100 percent value to a sightseer.

Shitennōji Temlpe

From the hillock where once stood the main watch tower, one can obtain a sweeping view of the industrial metropolis of Japn.

The municipality is now working on the project to make the castle grounds a public park in commemoration of the enthronement of His Majesty in 1928. An eight-storied tower outwardly in the shape of the original one, but embracing the advanced features of modern architecture, will soon become the central attraction of the new park.

Dōtombori, the theatre street

Shitennoji. Temple built about 1,300 years ago. With the Horyuji near Nara, the two temples are the oldest Buddhist sanctuaries in Japan. Owing to several devastating fires, the Shitennoji buildings have been reconstructed from time to time. The present structures are about 130 years old, and were built as a reproduction of the ancient original halls of worship.

Sumiyoshi Shrine. Has history dating back 1,700 years. Revered as the protector of seafarers, warriors, and poets. Its sanctuary is regarded as a perfect model of shrine architecture. The arch bridge within the premises is one of the popular attractions. The park adjoining the shrine has a ancient lighthouse or more precisely a high dedicatory lantern house, where people used to keep a fire burning to assure the safe return of the

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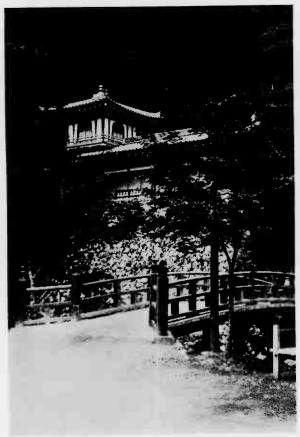
Tennoji Park and Nakanoshima Park. Near Shitennoji Temple is the Tennoji Park with a zoo, botanical garden, public museum auditorium, and music pavilion. An art gallery is now under construction. The Nakanoshima Park is located in the heart of the business centre.

Theatres. The central amusement quarters are along Dotombori and the busiest shopping street is Shinsaibashi-suji. The two grouped together form the busiest district in Osaka. Dotombori has a row of high-class theatres where classical Kabuki plays are offered. Osaka also is the home of the world famous puppet show played at the Bunrakuza.

Department Stores. The principal department stores are the Daimaru, Mitsukoshi, Shirokiya, and Takashimaya.

VICINITY:

Minō and Takarazuka. About 30 minutes ride on an electric line. Minō is noted for its waterfalls and maples. Takarazuka is a hot spring resort with European hotel accommodations.



Minō Park

Kobe and Way Points. Kobe is about an half hour's ride on the electric lines from Osaka. The Rokko range between Osaka and Kobe is popular among hikers and motorists. A fine automobile highway winds up to the top offering many scenic views. A golf course is another attraction. The beaches along the shore line are also attractive in summer. At Koshien is the largest baseball ground in Japan.

Kyoto and Vicinity. The ancient capital is an hour's ride from Osaka. It is the Mecca of the foreign tourists in Japan. Good hotel accommodations. Many historical places enhanced by natural beauty draw sightseers the year round. Arashiyama and Uji are noted for their cherry blossoms. Uji also is famous for ancient temple architecture and relics. At Ibaraki, between Osaka and Kyoto is a golf course.

Nara and Vicinity. Nara draws foreigners fully as much as Kyoto. It is 50 minutes' ride from Osaka. The city is so plotted that it is a park in itself. Its herds of deer, tall cedar groves, shrines, and temples give a quaint and peaceful atmosphere to be found nowhere else. The huge statue of Buddha and the Kasuga Shrine are especially famous. The ancient Horyuji Temple is near the city.

Wakayama and Vicinity. Wakayama is one hour away from Osaka. Shin-Wakanoura and Kimiidera Temple are the chief places of note in the vicinity. Hamadera, along the route is a famous bathing resort.

INLAND SEA COASTS:

The Inland Sea is often called a world park and hardly needs any introduction. In particular, Miyajima, Tomo-no-Ura, the Ritsurin Park of Takamatsu, and the spas at Beppu and Dogo are especially famous. Beppu is truly an international hotspring resort, attracting foreign visitors throughout the year.

The Katsuura district in the province of Kii is another place combining scenery and hotsprings.

Regular coastwise steamers run daily from Osaka to all these points. Special mention may be made of the luxurious motorships plying between Osaka and Beppu. Two or three days' leisure will be well spent by enjoying the Inland Sea views from these ships and resting a day at Beppu.

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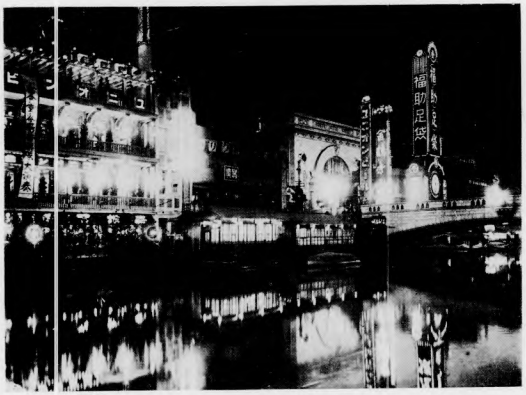
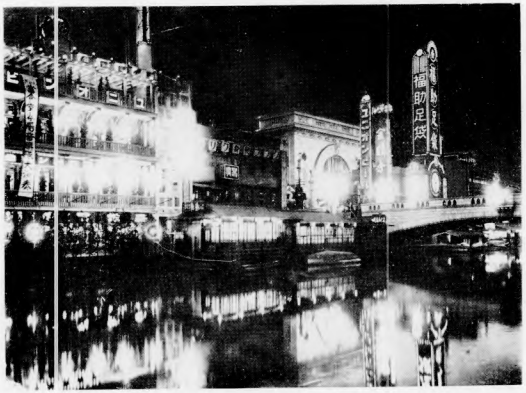


A night scene of the Dōtombori

Kōshiyen Bese-Ball Ground

Picturesque scene of **Arashi-yama,** Kyoto

Tennoji Park



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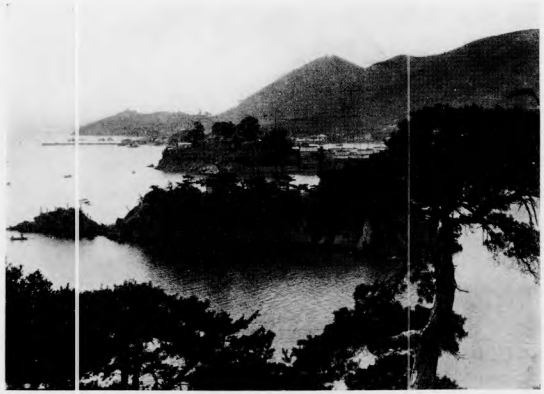

Tomo-no-ura, one of the most beautiful spots in the Inland Sea

Picturesque view of **Doro-Kyo,** near Katsuura.

Kasuga-Shrine, Nara

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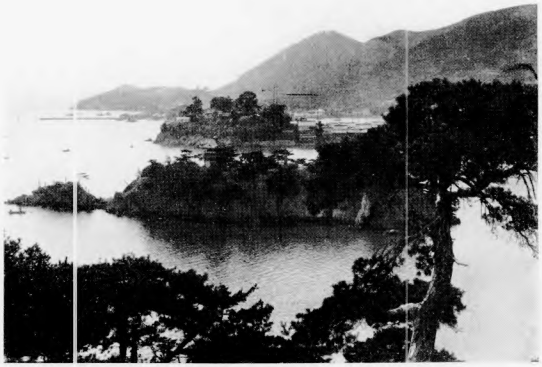

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MITSUBISHI SOKO KABUSHIKI KAISHA.

(MITSUBISHI WAREHOUSE CO.,LTD.)

ESTABLISHED 1887

HEAD OFFICE

MARUNOUCHI TOKYO.

BRANCHES

TOKYO, YOKOHAMA, OSAKA, KOBE, MOJI.

Warehousemen, Bonded-Warehousemen, Consigment-Salesmen, Wharfingers, Stevedores, Landing, Shipping and Forwarding Agents and Custom-Brokers.

OSAKA BRANCH

NO. 4, 2-CHOME, TAMAECHO, KITA-KU, OSAKA.

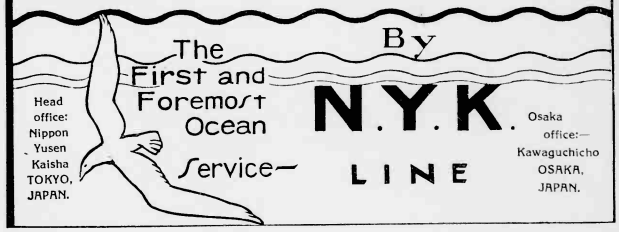
CABLE ADDRESS	CODE USED
"SOKO", OSAKA.	BENTLEY'S

WAREHOUSES	25 ACRES
TRANSIT SHEDS	4 ACRES
STEAM & MOTOR BOAT	98 TONS
LIGHTERS	4,000 TONS

BUSINESS QUARTERS

NAKANOSHIMA, NAGAHORI, ASHIWAKE, CHIKKO, SAKURAJIMA.

Principal Passenger Services			Port of Call
Line	Sailing Frequency	No. of Vessels	
Orient-California Service	Fortnightly	6	Manila, Hongkong, Shanghai, Nagasaki, Kobe, Shimidzu Yokohama, Honolulu, San Francisco and Los Angeles.
Orient-Seattle Service	Fortnightly	5	Hongkong, Shanghai, Moji, Kobe, Nagoya, Yokkaichi, Yokohama, Victoria (Vancouver), Seattle.
Japan-Europe Service	Fortnightly	11	Yokohama, Yokkaichi, Osaka, Kobe, Moji, Shanghai, Hongkong, Singa-pore, Penang, Colombo Suez, Port Said, Naples, Marseilles, Gibraltar and London.
Japan-Australia Service	Monthly	3	Yokohama, Nagoya, Osaka, Kobe, Nagasaki, Hongkong, Manila, Davao, Menado, Thursday I., Brisbane, Syd-ney and Melbourne.
Japan-Bombay Service	Monthly	3	Yokohama, Nagoya, Osaka, Kobe, Bombay, Karachi (occasionally).
South American (East Coast) Service	Monthly	6	Yokohama, Kobe, Moji, Hongkong, Singapore, South African Ports, Rio de Janeiro, Santos, Montevideo and Buenos Aires.
South American (West Coast) Service	Monthly	5	Hongkong, Moji, Kobe, Yokohama, Honolulu, Hilo, San Francisco, Los Angeles, Manzanillo, La Libertad, Balboa, Buenaventura, Payta, Callao, Pisco, Mollendo, Arica, Iquique, Antofagasta and Valparaiso.
Japan-China Rapid Express Service	Every 4 Days	12	Kobe, Nagasaki and Shanghai.
South Sea Islands Eastward Service	Every other Month	1	Kobe, Moji, Yokohama, Saipan, Truk, Ponape, Kusai, Jaluit.
Westward Service	Monthly	2	Kobe, Moji, Yokohama, Futami, Saipan, Tinian, Yap, Palao, Anzaur, Menado and Davao.
Connecting Service	Every other Month	1	Kobe, Moji, Yokohama, Palao, Truk, Ponape, Kusai, Jaluit.
Osaka } -Shanghai Kobe } Service	Semi-weekly	4	Osaka, Kobe, Moji, and Shanghai.
Osaka } -Tsingtao Kobe } Service	Twice a Month	1	Oskaka, Kobe, Ujina, Moji, Tsingtao.



NANIWA SOKO, LTD.

(WAREHOUSING CO.)

CAPITAL: PAID UP ¥ 5,000,000.

RESERVE FUND: ¥ 1,138,000.

(AUG., 1930.)

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KITAKU, OSAKA,

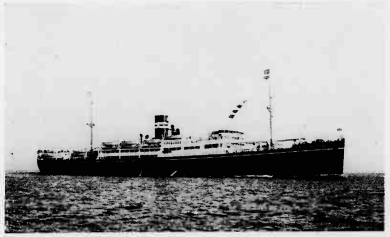
JAPAN.

BRANCHES:

YOKOHAMA, SHIMONOSEKI,

& KOBE.

O. S. K. LINE



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Japan-East African Line	...Monthly.
Japan-Calcutta Line	...2 Sailings a month.
Japan-Bombay Line	...2 Sailings a month.
Japan-Java Line	...2 Sailings a month.
Japan-Philippine Line	...2 Sailings a month.
Kobe-Keelung Line	...3 Sailings a fortnight.
Osaka-Dairen Line	...Every 3 days.
Osaka-Tientsin Line	...3 Sailings a fortnight.
Osaka-Tsingtau Line	...2 Sailings a month.

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CABLE ADDRESS. "SUGIWARE"
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Phone Nos. Nishi 1805
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〃 3775
〃 2511
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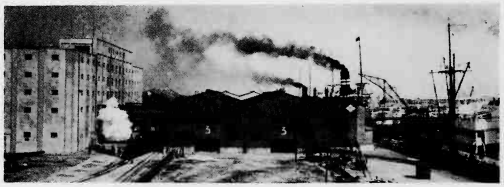
(Phone Nos. NISHI 5626, 4067)

THE SUMITOMO WAREHOUSE CO., LTD.

Established 1899 Capital Paid-up ¥15,000,000



The Sumitomo Quay, Chikko, Osaka.

GENERAL and BOND WAREHOUSES
WHARF FACILITIES with BELT LINE
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CUSTOMS BROKERS
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CHIKKO	〃	ECHIZEMBORI	TOKIO

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(THE TOSHIN WAREHOUSE CO., LTD.)

CAPITAL.....Yen 15,000,000

Stevedoring, Landing, Express and Shipping Agents, Customs Brokers and Warehousemen

Complete with all Facilities and Thoroughly Equipped for Handling Stevedoring and Werehousing Business

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Directors: K. HAYASHI and K. FUKUI
Auditors: Y. KOSHI and T. MAJIMA

OSAKA BRANCH: No. 5, Nakanoshima 3 Chome, OSAKA

HEAD OFFICE and BRANCHES:

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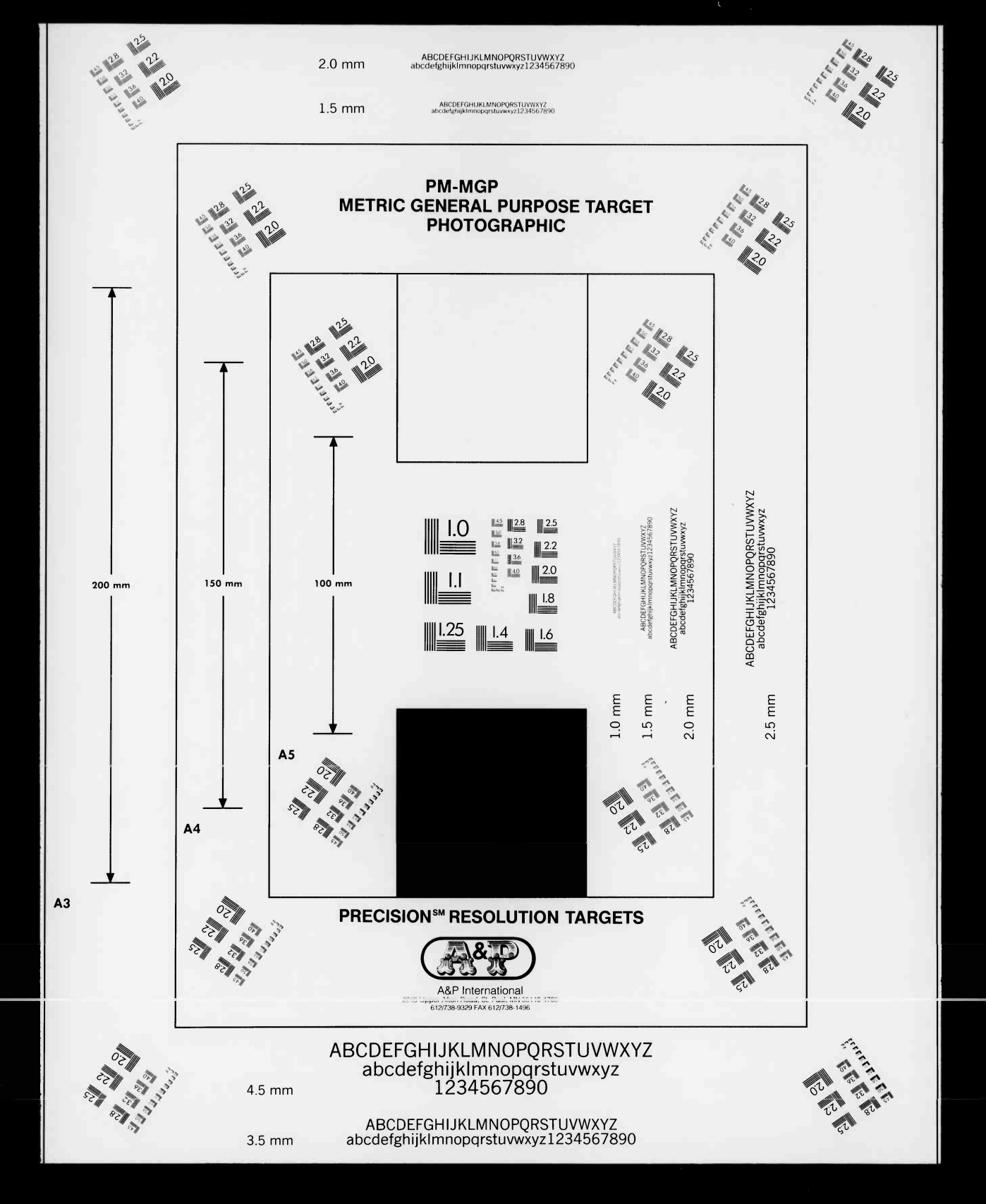
REDUCTION RATIO 12:1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ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz1234567890
PM-MGP
METRIC GENERAL PURPOSE TARGET
PHOTOGRAPHIC
200 mm
150 mm
100 mm
A3
A4
A5
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1.1
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1234567890
PRECISION℠ RESOLUTION TARGETS
A&P International
612/738-9329 FAX 612/738-1496
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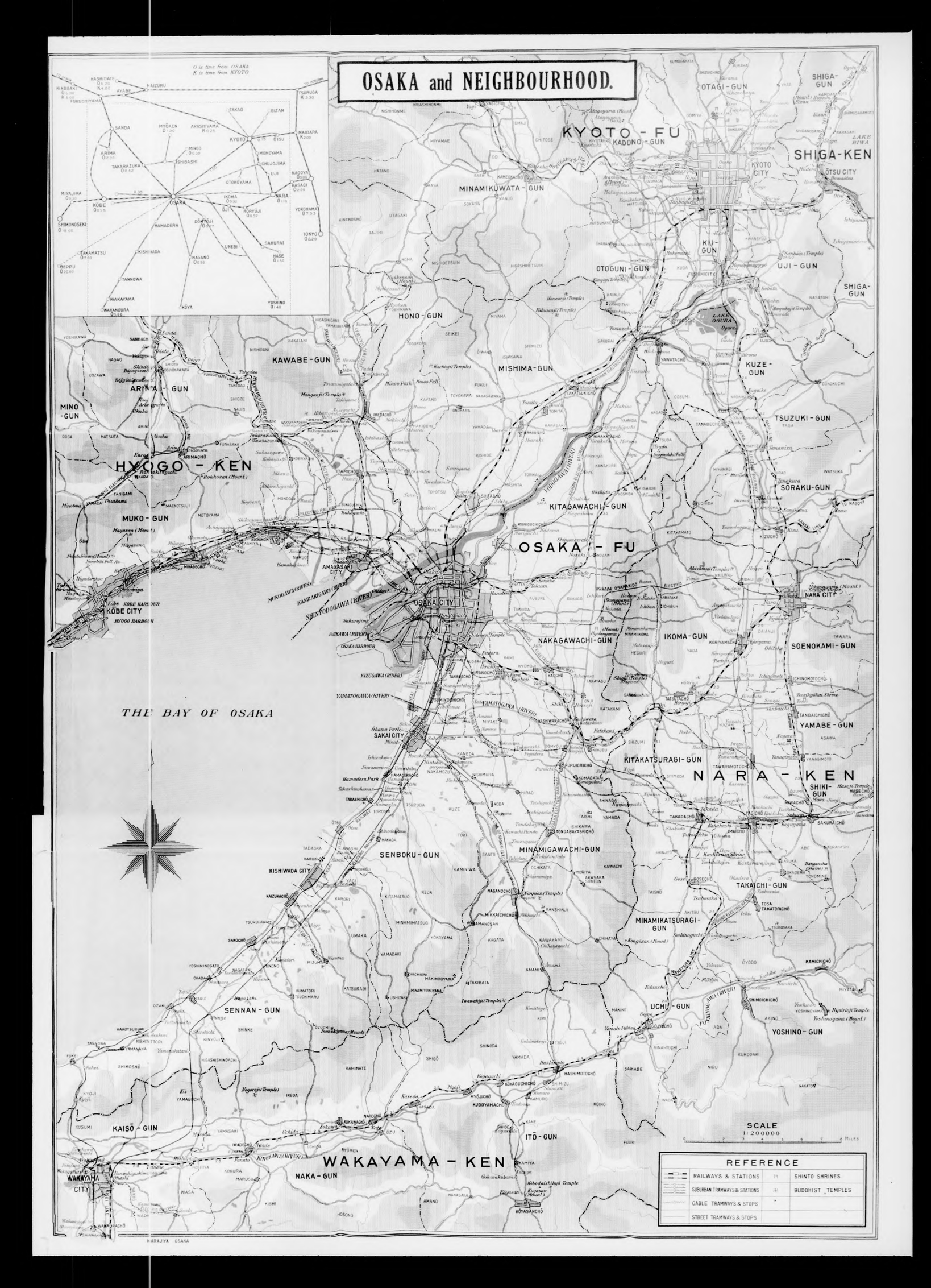
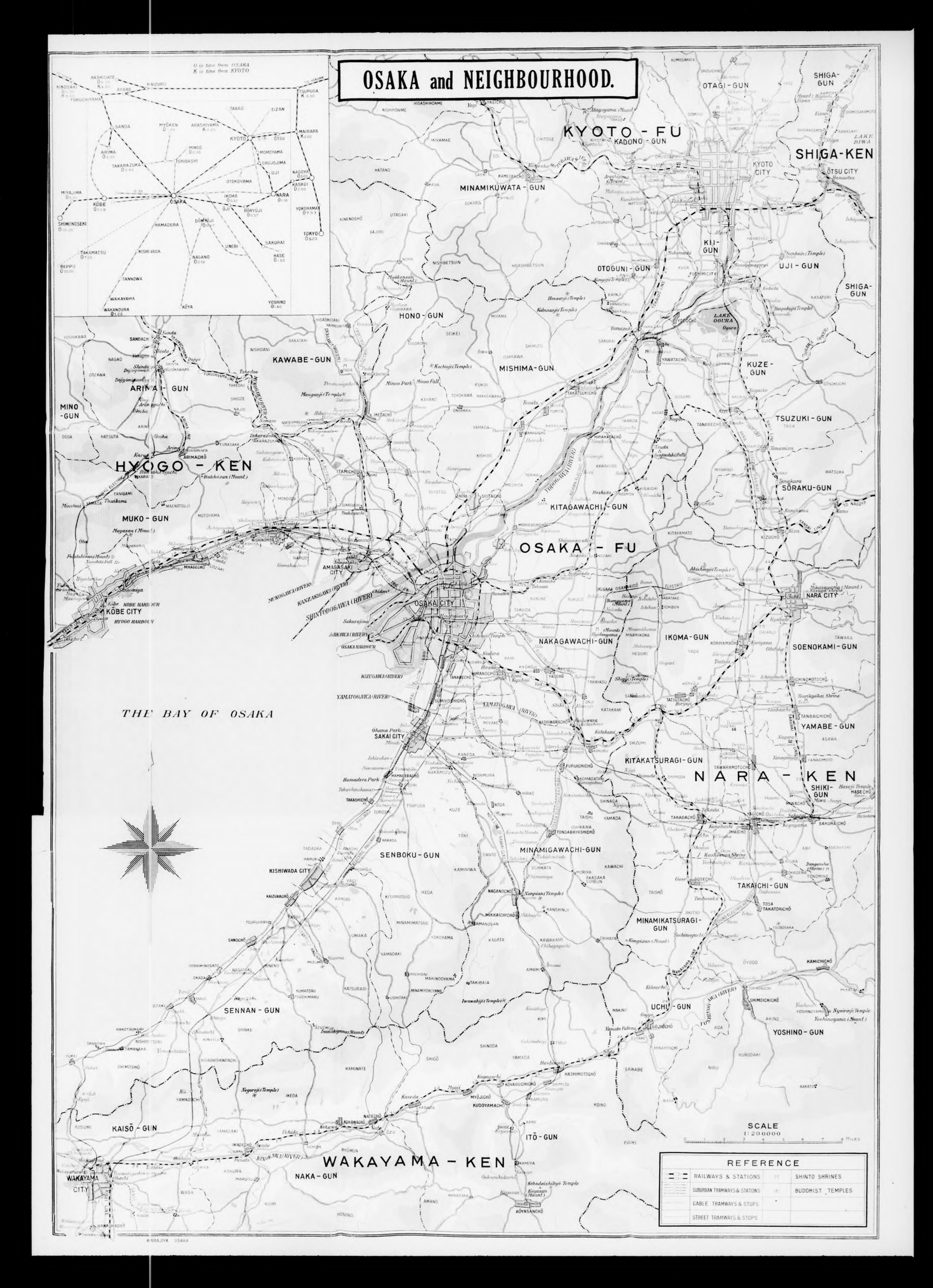

OSAKA and NEIGHBOURHOOD.
O is time from OSAKA
K is time from KYOTO
KYOTO - FU
KADONO - GUN
SHIGA-KEN
SHIGA-GUN
OTAGI-GUN
KYOTO CITY
OTSU CITY
MINAMIKUWATA - GUN
KII-GUN
UJI - GUN
OTOGUNI - GUN
HONO - GUN
KAWABE - GUN
MISHIMA-GUN
KUZE-GUN
ARIMA - GUN
MINO-GUN
TSUZUKI - GUN
HYOGO - KEN
SŌRAKU-GUN
KITAGAWACHI - GUN
MUKO - GUN
OSAKA - FU
AMAGASAKI CITY
OSAKA CITY
KOBE CITY
NARA CITY
NAKAGAWACHI-GUN
IKOMA-GUN
SOENOKAMI-GUN
THE BAY OF OSAKA
SAKAI CITY
YAMABE - GUN
KITAKATSURAGI-GUN
NARA - KEN
SHIKI-GUN
TAKAICHI-GUN
SENBOKU - GUN
MINAMIGAWACHI-GUN
KISHIWADA CITY
MINAMIKATSURAGI-GUN
SENNAN - GUN
UCHI - GUN
YOSHINO - GUN
KAISŌ - GUN
ITŌ - GUN
WAKAYAMA - KEN
NAKA - GUN
WAKAYAMA CITY
SCALE
1:200000
REFERENCE
RAILWAYS & STATIONS
SUBURBAN TRAMWAYS & STATIONS
CABLE TRAMWAYS & STOPS
STREET TRAMWAYS & STOPS
SHINTO SHRINES
BUDDHIST TEMPLES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HYOGO - KEN
SŌRAKU-GUN
KITAGAWACHI - GUN
MUKO - GUN
OSAKA - FU
NARA CITY
IKOMA-GUN
SOENOKAMI-GUN
NAKAGAWACHI-GUN
AMAGASAKI CITY
OSAKA CITY
KŌBE CITY
KŌBE HARBOUR
HYOGO HARBOUR
OSAKA HARBOUR
THE BAY OF OSAKA
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KITAKATSURAGI-GUN
NARA - KEN
SHIKI-GUN
SAKAI CITY
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SENBOKU-GUN
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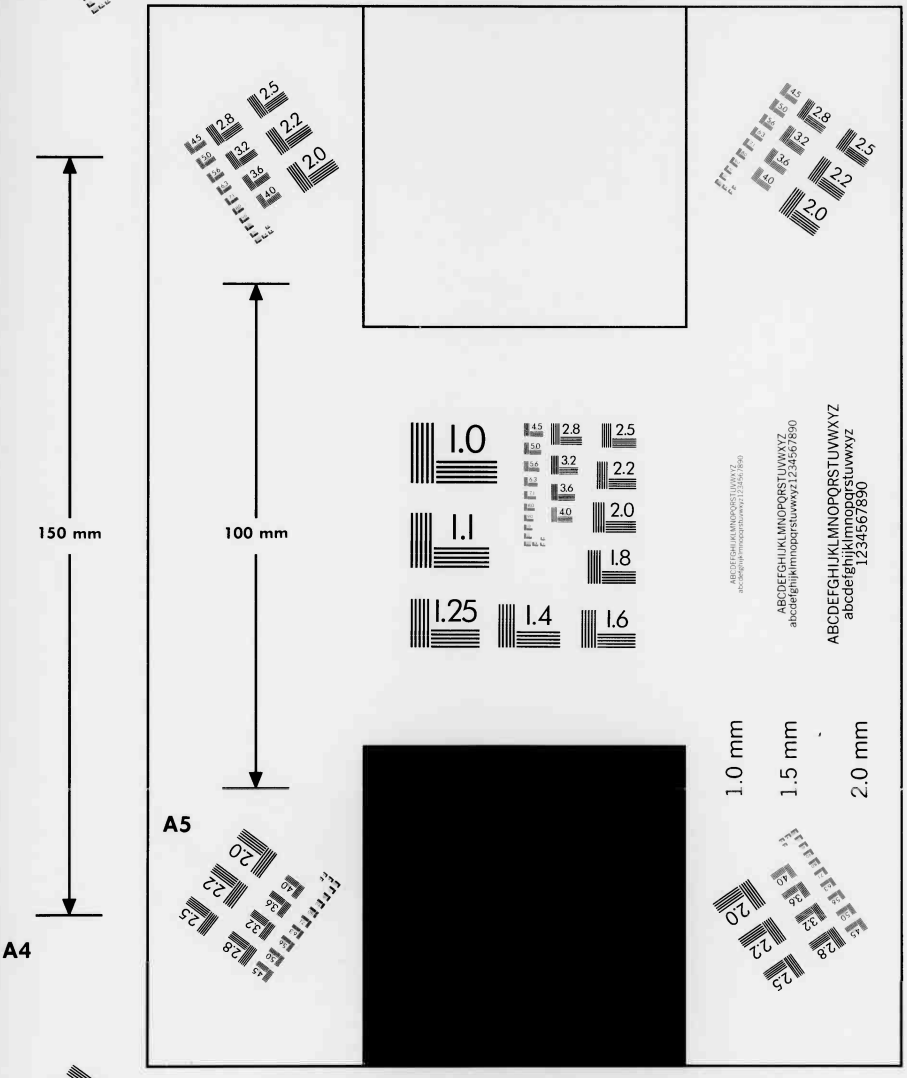
REDUCTION RATIO 10:1

PM-MGP
METRIC GENERAL PURPOSE TARGET
PHOTOGRAPHIC



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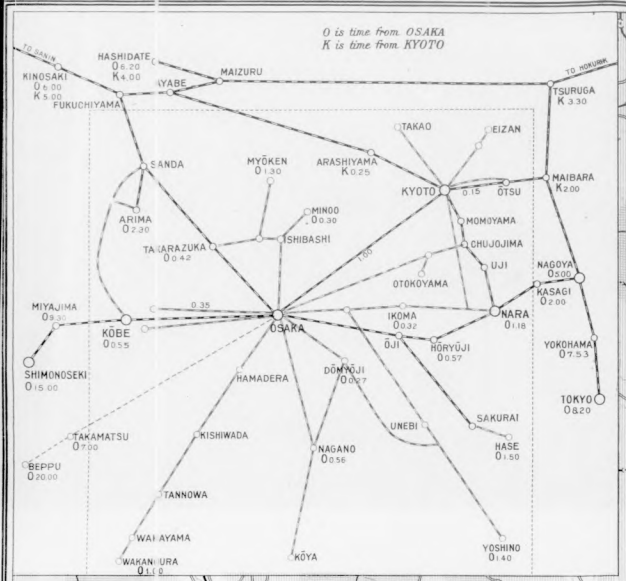
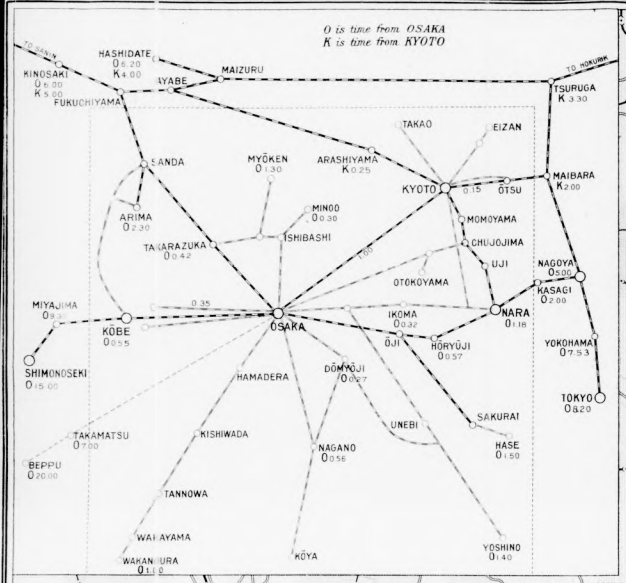
612/738-9329 FAX 612/738-1496

OSAKA and NEIGHBOURHOOD.

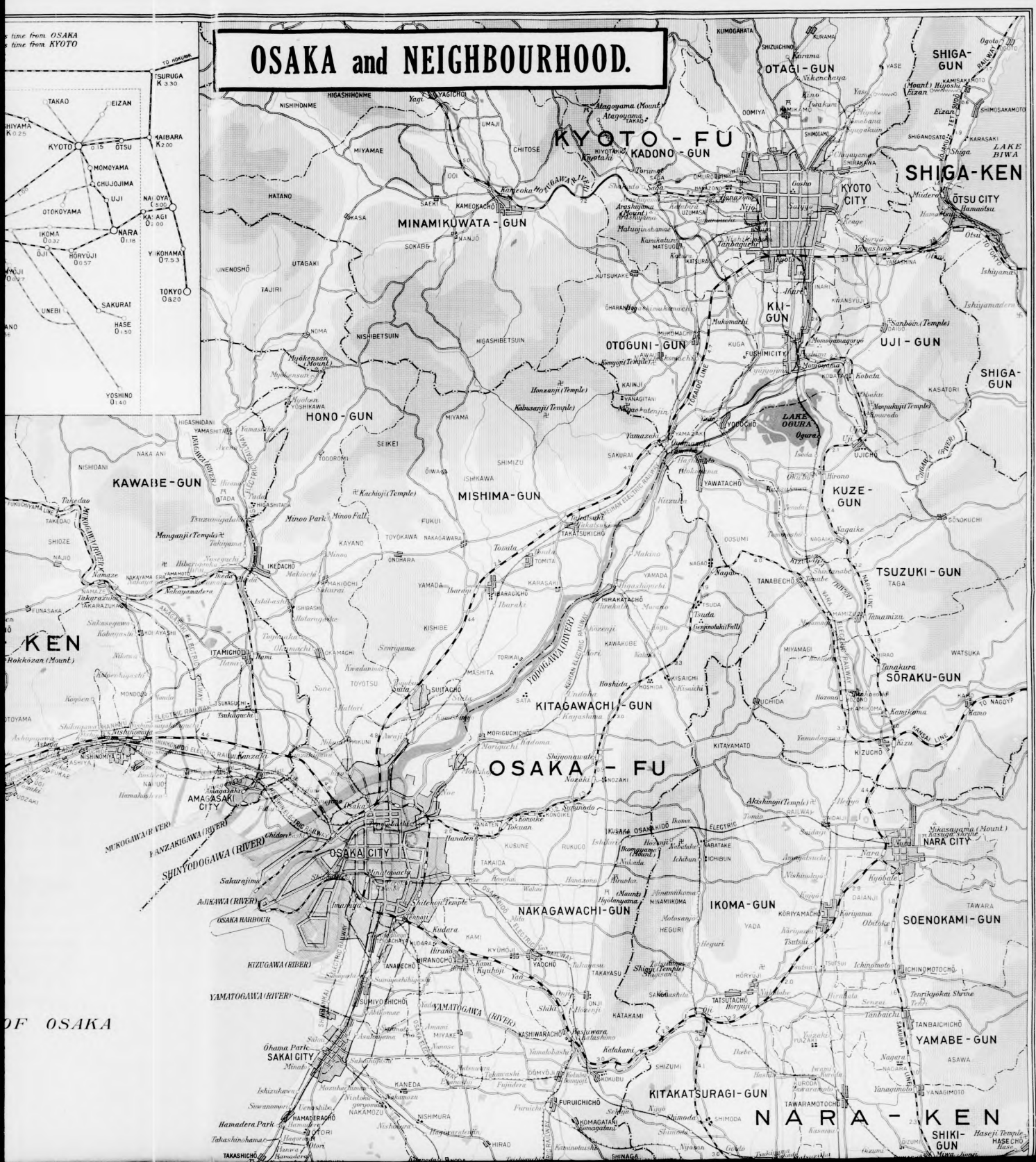


THE BAY OF OSAKA

OSAKA and NEIGHBOURHOOD.



KUMOGAHATA
SHIZUICHINO
OTAGI-GUN
HIGASHIHONME
NISHIHONME
Yagi
YAGICHO
Atagoyama (Mount)
UMAJI
KYOTO-FU
KADONO-GUN
MIYAMAE
CHITOSE
Kameoka
HOZUGAWA (RIVER)
HATANO
SAGA
KAMEOKACHO
MINAMIKUWATA-GUN
NANJO
SOKABE
KINENOSHO
UTAGAKI
TAJIRI
KII-GUN
NOMA
NISHIBETSUIN
HIGASHIBETSUIN
OTOGUNI-GUN
Myökensan (Mount)
Honzanji (Temple)
Kabusanji (Temple)
HONO-GUN
SEIKEI
TODOROKI
MIYAMA
SHIMIZU
ISHIKAWA
ÖIWA
SAKURAI
YAWATACHO
LAKE OGURA
Ogura
HIGASHIDANI
YAMASHITA
NAKATANI
NISHIDANI
KAWABE-GUN
Kachiogi (Temple)
MISHIMA-GUN
Minoo Park
Minoo Fall
FUKUI
KAYANO
TOYOKAWA
NAKAGAWARA
ONOHARA
TAKATSUKICHO
Tomita
YAMADA
Ibaraki
KARASAKI
TANABECHO
HIRAKATACHO
Tsuda
Sengimotoki Fall
KISHIBE
KAWAGUBE
MIYAMAGI
ARIMA-GUN
MINO-GUN
Manganji (Temple)
IKEDACHO
Arimaguchi
Ariba
SHIOZE
NAJIO
Namaze
NAKAYAMADERA
YAMAMOTO
Takarazuka
TAKARAZUKA
ARIMA
HATSUTA
OOGA
Arima
Kinzansen
FUNASAKA
ARIMACHO
HYOGO-KEN
Rokkozan (Mount)
HARATO
ITAMICHO
Itami
OKAMACHI
Senrigama
TORIKAI
MASHITA
SUITACHO
Suita
TOYOTSU
KITAGAWACHI-GUN
TAKARAGAWA
MONDOO
SUKAGUCHI
Tsukaguchi
MAENOTSUJI
MOTOYAMA
MUKO-GUN
Mayasan (Mount)
NISHINOMIYA CITY
Nishinomiya
Kanzaki
NARUO
Fudodakizan (Mount)
Nunobiki Fall
MIKAGECHO
AMAGASAKI CITY
OSAKA-FU
Akashinoji (Temple)
Osaka
MUKOGAWA (RIVER)
KANZAKIGAWA (RIVER)
SHINYODOGAWA (RIVER)
Chidori
OSAKA CITY
Sakurajima
AJIKAWA (RIVER)
OSAKA HARBOUR
Kobe
KÖBE HARBOUR
KÖBE CITY
HYOGO HARBOUR
NAKAGAWACHI-GUN
IKOMA-GUN
KITAKATSURAGI-GUN
KIZUGAWA (RIBER)
YAMATOGAWA (RIVER)
SUMIYOSHICHO
KASHIWARACHO
Ohama Park
SAKAI CITY
KANEDA
Hamadera Park
HAMADERACHO
TAKASHICHO
FURUICHICHO
KOMAGATA
HIRAO
SHINAGA
THE BAY OF OSAKA
NAR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NARA CITY
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SHINTODOGAWA (RIVER)
MUKOGAWA (RIVER)
YAMATOGAWA (RIVER)
KIZUGAWA (RIBER)
AJIKAWA (RIVER)
OSAKA HARBOUR
TOKAIDO LINE
KEIHAN ELECTRIC RAILWAY
HANKYU ELECTRIC RAILWAY
NARA LINE
KANSAI LINE
KYOTO
OTSU
NARA
SAKURAI
UJI
HORYUJI
IKOMA
TAKAO
EIZAN
KAIBARA
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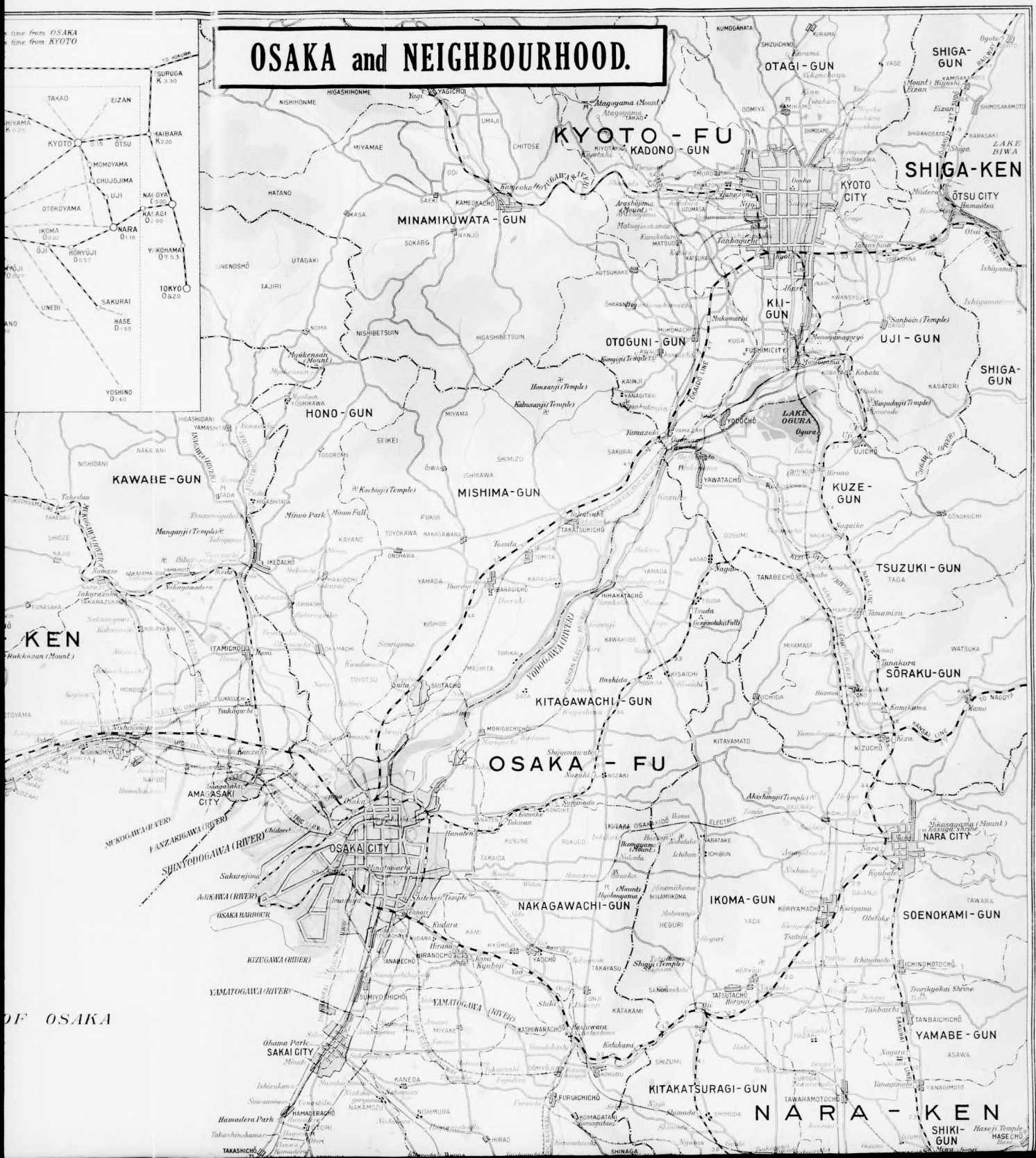
OTOKOYAMA
YOSHINO
HASE
TOKYO
TSURUGA
YOKOHAMA
NAGOYA
KAMAGI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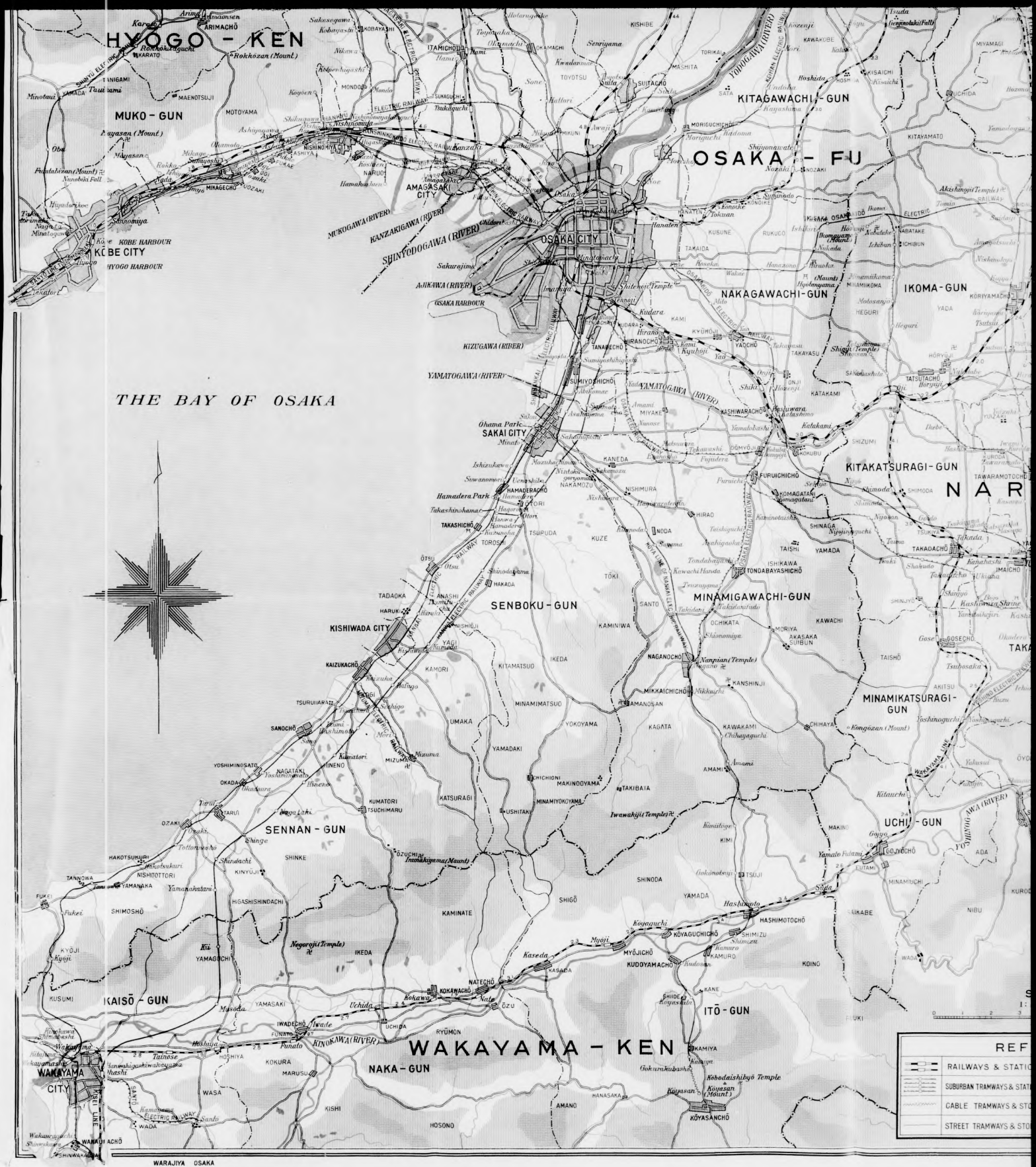
AJIKAWA (RIVER)
MUKOGAWA(R VER)
YAMATOGAWA (RIVER)
LAKE OGURA
Ogura
Uji
Yodo
Kamo
Kizu
Nara
Sakai
Osaka
Kobe
Nagoya
Kyoto
Otsu
Takarazuka
Ikeda
Suita
Toyonaka
Hirano
Yao
Kashiwara
Furuichi
Shinaga
Hase
Tsuda
Tamamizu
Kizuchō
Ujichō
Yawatachō
Yodochō
Fushimicity
Takatsukichō
Niharachō
Tanabechō
Kisaichi
Kawabe
Ichinomotochō
Tanbaichichō
Yanagimotochō
Tawaramotochō
Furuichichō
Takashichō
Hamadera
Hamadera Park
Obama Park
Sakurajima
Kitahama
Nakanoshima
Tsutenkaku
Shitenōji Temple
Shitennoji
Tennōji
Abeno
Sumiyoshi
Sumiyoshichō
Hanaten
Tokiwa
Kusune
Takaida
Rukuco
Kusaka
Osaka Electric Railway
Hankyu Railway
Kintetsu Railway
Nankai Railway
Keihan Electric Railway
Hanshin Electric Railway
Kansai Line
Tokaido Line
Sanyo Line
Yamatogawa (River)
Yodogawa (River)
Shinyodogawa (River)
Ajikawa (River)
Kizugawa (River)
Mukogawa (River)
Yanagase Tunnel
Rokkozan (Mount)
Ikoma
Takao
Eizan
Kaibara
Momoyama
Chujojima
Uji
Naiyo
Kasagi
Nara
Otokoyama
Ikoma
Horyuji
Y. Kohama
Tokyo
Sakurai
Unebi
Hase
Yoshino
Suruga
Hiyama
Kyoto
Otsu
Shizuichi
Kumogahata
Kurama
Yase
Oomiya
Kamikamo
Shimogamo
Shiga
Ogoto
Kamisaka
Hojoshi
Eizan
Shimosakamoto
Shiganosato
Karasaki
Mount Hiei
Arashiyama (Mount)
Matsuo
Tanbaguchi
Matsuo
Katsura
Kutsukake
Inari
Kwansyuji
Sanboin (Temple)
Daigo
Mukomachi
Kuga
Momoyamagoryo
Kobata
Kasatori
Manpukuji Temple
Kowadodo


HYOGO - KEN
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SENNAN - GUN
UCHI - GUN
KAISŌ - GUN
ITŌ - GUN
NAKA - GUN
WAKAYAMA - KEN
THE BAY OF OSAKA
KOBE CITY
KOBE HARBOUR
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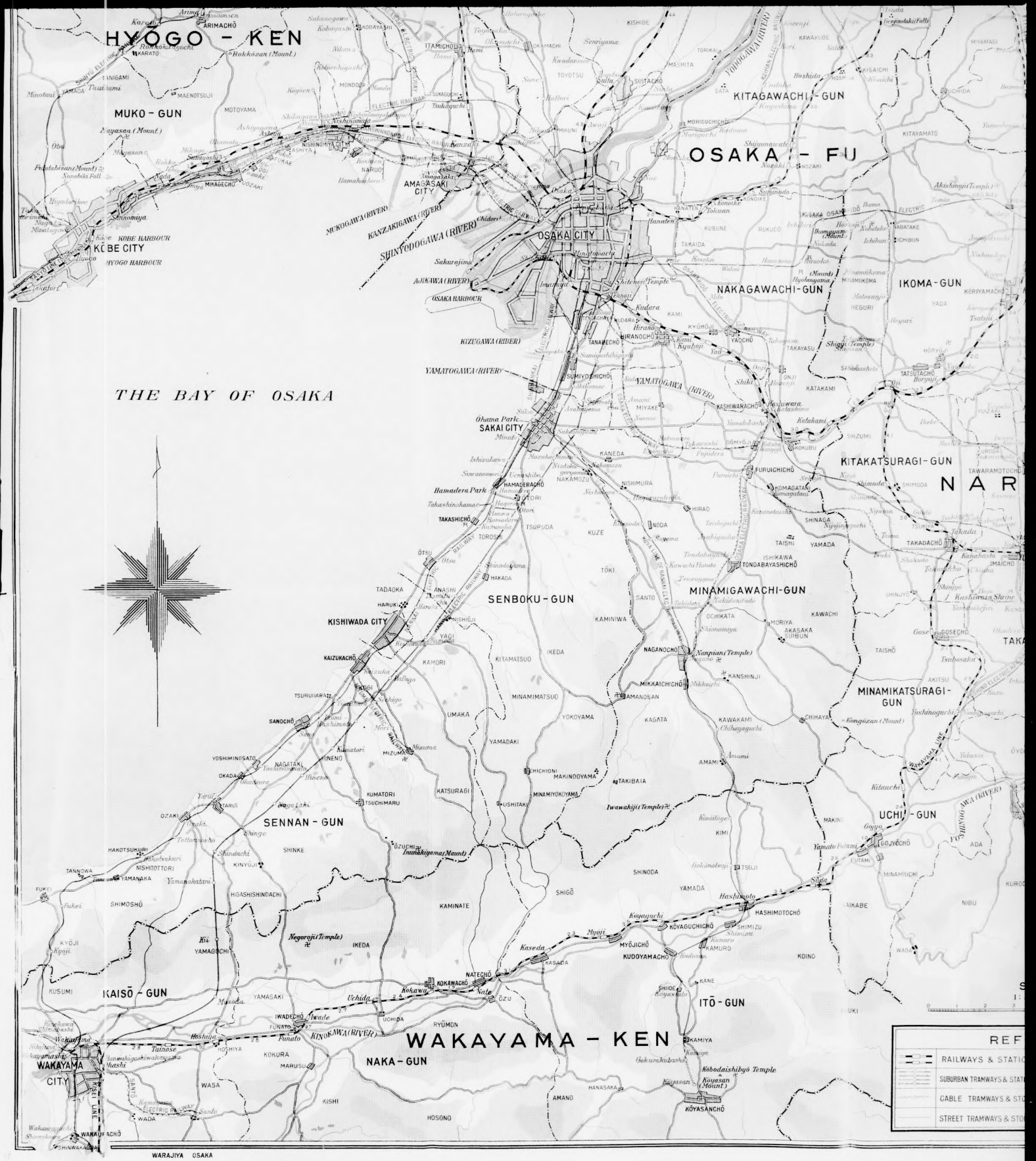
YODOGAWA (RIVER)
WARAJIYA OSAKA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TAKAIDA
NOZAKI
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TOKUAN
HANATEN
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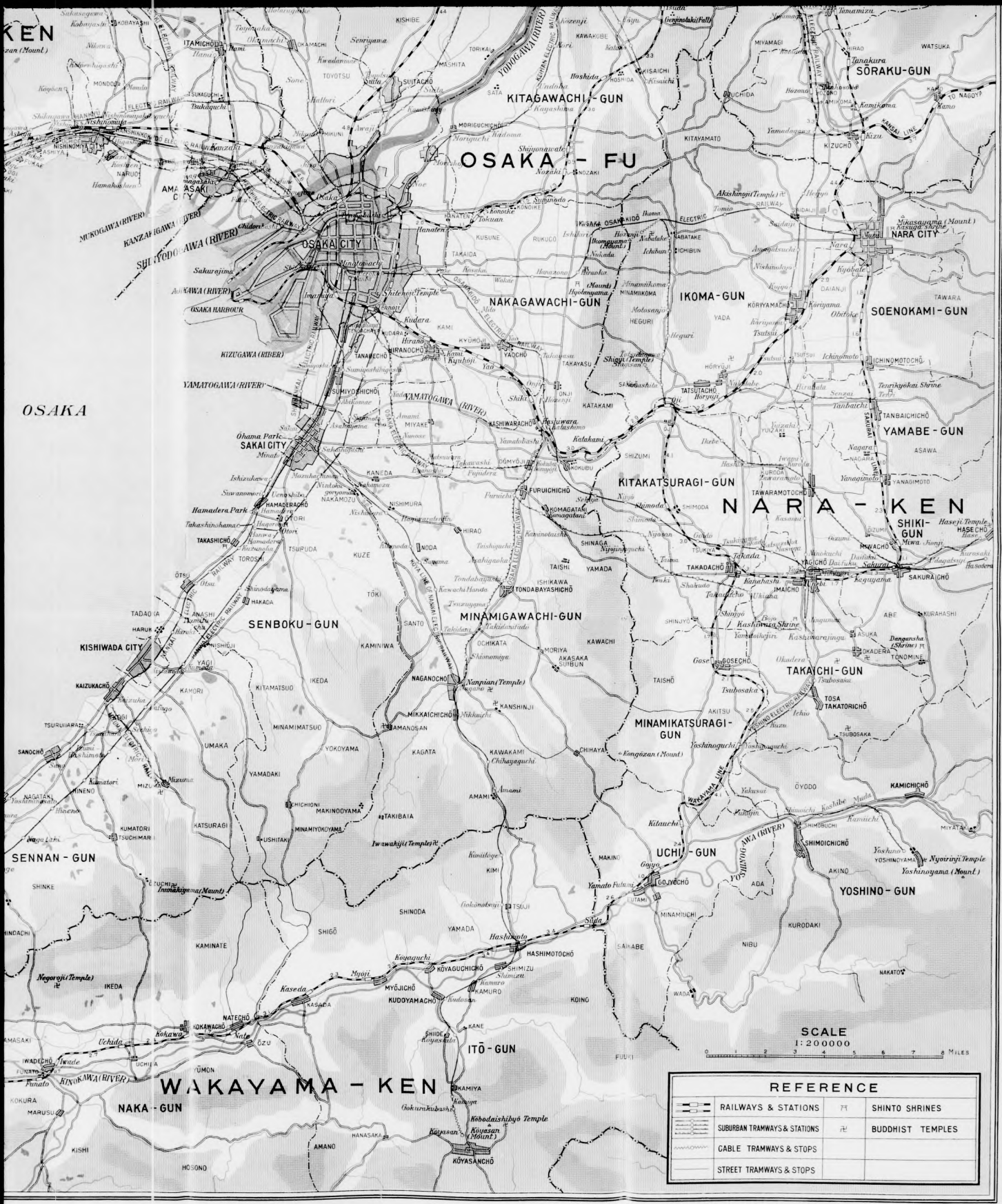
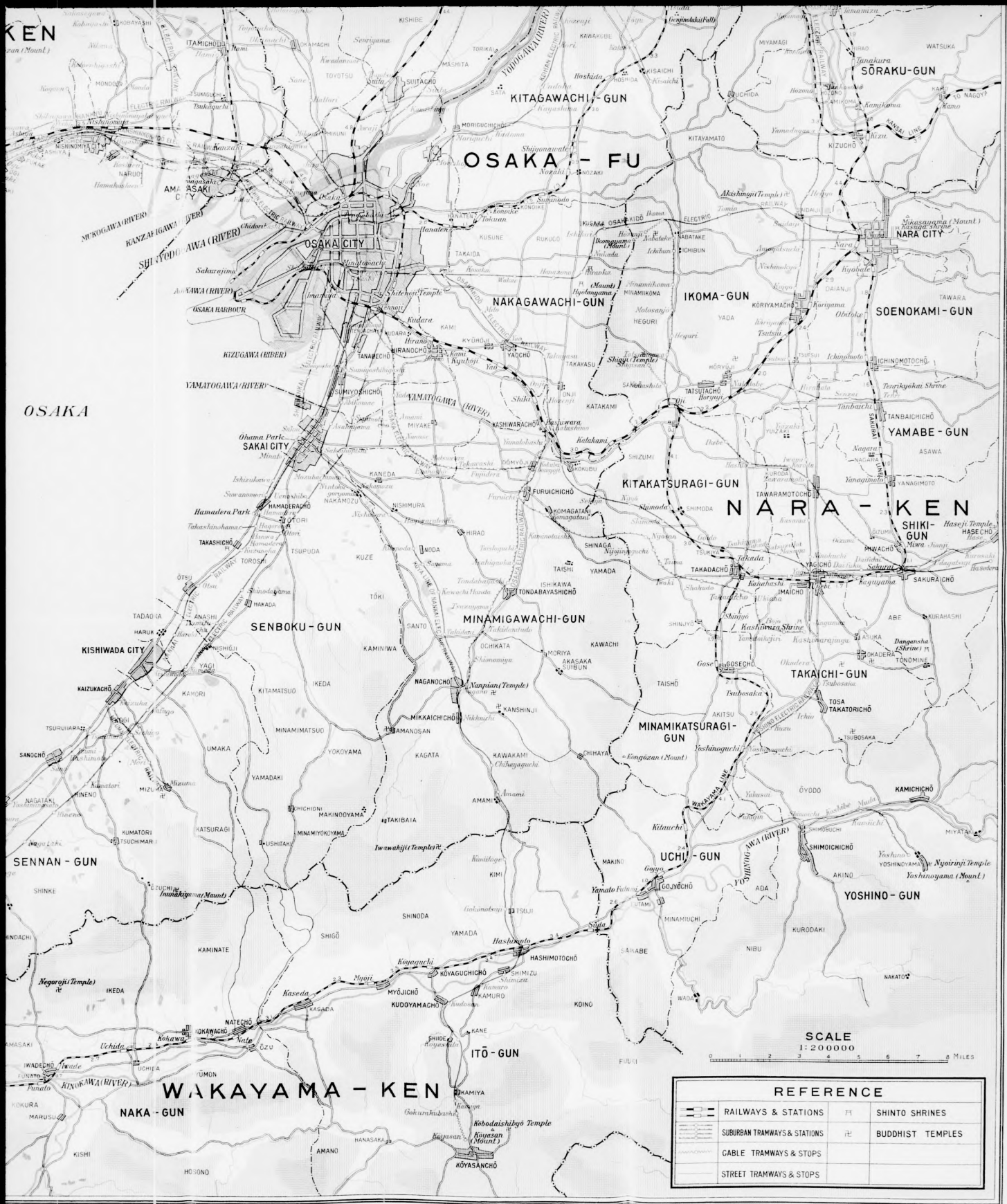
KATAKAMI
KAMI KYUHOJI
YAOCHŌ
HIRANOCHŌ
TANABECHŌ
SUMIYOSHICHŌ
KASHIWARACHŌ
KOKUBU
FURUICHICHŌ
KOMAGATANI
SHIMODA
NISHIMURA
HIRAO
NODA
KANEDA
NAKAMOZU
HAMADERACHŌ
TAKASHICHŌ
TSURUDA
KUZE
TŌKI
SANTŌ
KAMINIWA
IKEDA
KAMORI
KITAMATSUO
MINAMIMATSUO
UMAKA
YOKOYAMA
KAGATA
KAWAKAMI
CHIHAYA
NAGANOCHŌ
MIKKAICHICHŌ
AMANOSAN
KANSHINJI
TONDABAYASHICHŌ
ISHIKAWA
TAISHI
YAMADA
TAKADACHŌ
SHINAGA
OCHIKATA
MORIYA
AKASAKA DŌBUN
KAWACHI
TAISHŌ
GOSECHŌ
TAKA
IMAICHŌ
TADAOKA
HARUKI
ANASHI
KAIZUKACHŌ
TSURUHARA
SANOCHŌ
YOSHIMINOSATO
NAGATAKI
OKADA
MINENO
MIZUMA
OZAKI
TARŪ
HAKOTSUKURI
NISHITOTTORI
TANNOWA
YAMANAKA
SHIMOSHŌ
FUKEI
KYŌJI
YAMAGUCHI
KUSUMI
YAMASAKI
IWADECHŌ
FUNATO
KOKURA
MARUSU
WASA
KISHI
HOSONO
WADA
AMANO
HANASAKA
KOYASANCHŌ
KAMIYA
NATECHŌ
KOKAWACHŌ
KASEDA
MYŌJICHŌ
KUDOYAMACHŌ
KOYAGUCHICHŌ
HASHIMOTOCHŌ
SHIMIZU
KAMURO
KOINO
AIKABE
NIBU
GOJYŌCHŌ
TSUJI
SHINODA
SHIGŌ
KAMINATE
HIGASHISHINDACHI
SHINKE
KINYŌJI
SHINDACHI
KIMI
MAKINO
KAMIIDE
SHIIDE
KANE
KAMIYA
KŌBODAISHIBYŌ TEMPLE
KŌYASAN (MOUNT)
KINOKAWA (RIVER)
YAMATOGAWA (RIVER)
YOSHINOGAWA (RIVER)
KANZAKIGAWA (RIVER)
SHIMTODOGAWA (RIVER)
MUKOGAWA (RIVER)
AJIKAWA (RIVER)
KIZUGAWA (RIBER)
Ohama Park
Hamadera Park
Negoroji (Temple)
Iwawakiji (Temple)
Nanpian (Temple)
Kongōzan (Mount)
Inunakigamai (Mount)
Rokkōzan (Mount)
Kayasan (Mount)
Fukadaizan (Mount)
Ikomayama (Mount)
Shitenōji Temple
Akishinogi Temple
Kashiwara Shrine
Hashimoto
Koyaguchi
Kaseda
Myōji
Uchida
Hoshiya
Funato
Iwade
Wakayama
Tainose
Kokawa
Nate
Yamato
Shigi
Kitauchi
Yoshino
Kawakami
Chihaya
Kongōzan
Kōbodaishibyō Temple
Koyasan (Mount)
WAKAYAMA LINE
NANKAI ELECTRIC RAILWAY
HANKYU ELECTRIC RAILWAY
KEIHAN ELECTRIC RAILWAY
OSAKA ELECTRIC RAILWAY
SANYO ELECTRIC RAILWAY
KINTETSU RAILWAY
NARA ELECTRIC RAILWAY
WAKAYAMA ELECTRIC RAILWAY
KISEI LINE
REF
RAILWAYS & STATIO
SUBURBAN TRAMWAYS & STAT
CABLE TRAMWAYS & STO
STREET TRAMWAYS & STO
WARAJIYA OSAKA


OSAKA - FU
NARA - KEN
WAKAYAMA - KEN
OSAKA CITY
SAKAI CITY
NARA CITY
KISHIWADA CITY
OSAKA
KITAGAWACHI - GUN
NAKAGAWACHI - GUN
IKOMA - GUN
SOENOKAMI - GUN
YAMABE - GUN
KITAKATSURAGI - GUN
SHIKI - GUN
SŌRAKU - GUN
SENBOKU - GUN
MINAMIGAWACHI - GUN
TAKAICHI - GUN
MINAMIKATSURAGI - GUN
UCHI - GUN
YOSHINO - GUN
SENNAN - GUN
NAKA - GUN
ITŌ - GUN
KŌYASANCHŌ
Kōbodaishibyō Temple
Kōyasan (Mount)
Nanpian (Temple)
Iwawakiji Temple
Negoroji (Temple)
Yoshinoyama (Mount)
Kongōzan (Mount)
Inamikigamaz (Mount)
Ohama Park
Hamadera Park
OSAKA HARBOUR
KIZUGAWA (RIVER)
YAMATOGAWA (RIVER)
KANZAKIGAWA (RIVER)
MUKOGAWA (RIVER)
YODOGAWA (RIVER)
KINOKAWA (RIVER)
SCALE
1:200000
0 1 2 3 4 5 6 8 MILES
REFERENCE
RAILWAYS & STATIONS
SUBURBAN TRAMWAYS & STATIONS
CABLE TRAMWAYS & STOPS
STREET TRAMWAYS & STOPS
SHINTO SHRINES
BUDDHIST TEMPLES


OSAKA - FU
OSAKA CITY
SAKAI CITY
KISHIWADA CITY
NARA - KEN
WAKAYAMA - KEN
OSAKA
KITAGAWACHI - GUN
NAKAGAWACHI - GUN
SENBOKU - GUN
MINAMIGAWACHI - GUN
IKOMA - GUN
KITAKATSURAGI - GUN
MINAMIKATSURAGI - GUN
SENNAN - GUN
NAKA - GUN
ITŌ - GUN
UCHI - GUN
YOSHINO - GUN
TAKAICHI - GUN
YAMABE - GUN
SHIKI - GUN
SOENOKAMI - GUN
SŌRAKU - GUN
NARA CITY
OSAKA HARBOUR
Ohama Park
Hamadera Park
Iwawakiji Temple
Negoroji (Temple)
Nanpian (Temple)
Kongōzan (Mount)
Koyasan (Mount)
Kōbodaishibyō Temple
Nyoirinji Temple
Yoshinoyama (Mount)
Tenrikyokai Shrine
Kashiharajingū Shrine
Dangansha (Shrine)
Haseji Temple
Shigi (Temple)
Akashimaji (Temple)
Ikomayama (Mount)
Hyōtanyama (Mount)
Sakurajima
Inamakiyama (Mount)
Kongōsanji Temple
Chitokuji Temple
Hōrinji
Kyūhōji
Yaochō
Kudara
Hirano
Tanabechō
Sumiyoshichō
Yamatogawa (River)
Kizugawa (River)
Mukogawa (River)
Kanzakigawa (River)
Shijyōdōgawa (River)
Yoshinogawa (River)
Kinokawa (River)
Kaseda
Myōji
Koyaguchi
Hashimoto
Shida
Gojyōchō
Wakayama Line
Osaka Loop Line
Nankai Electric Railway
Osaka Electric Railway
Kintetsu Railway
Hanwa Railway
Sakaisuji Railway
Takashichō
Hakada
Tondabayashichō
Furuichichō
Kashiwarachō
Katakami
Tatsutachō
Takadachō
Imaichō
Yagichō
Sakuraichō
Tawaramotochō
Yanagimoto
Tanbaichichō
Ichinomotochō
Köriyamachō
Kizuchō
Kitayamato
Miyamagi
Watsuka
Tanakura
Hoshida
Kisaichi
Torikai
Kawakobe
Gojinokaki Falls
Mōriguchichō
Shijyonawate
Nozaki
Sumiyoshi
Tokuan
Hanaten
Kusune
Takaida
Nabatake
Ichibun
Kusaka Osakaguchi
Ibaraki
Kadoma
Kyūdō
Kami
Yada
Heguri
Tatsuta
Ichinomoto
Tsutsui
Daianji
Kyūbetsu
Tawara
Obitoke
Nagara
Asawa
Yanagimoto
Sakurai
Ōji
Shizumi
Shimoda
Shinjō
Kashiwara
Ōsaka
Gosechō
Tsubosaka
Tosa
Takatorichō
Tsubosaka
Kamichichō
Shimoichichō
Shimobuchi
Miyata
Yoshinoyama
Akino
Ada
Ōyodo
Kitauchi
Yamato Futami
Minamiuchi
Kurodaki
Nibu
Saikabe
Koino
Wadai
Nakato
Fujiki
Kane
Shiide
Kamiya
Kokawa
Nate
Nateichō
Ōzu
Uchida
Iwade
Iwadechō
Funato
Kokura
Marusu
Kishi
Hosono
Amano
Hanasaka
Kōyasanchō
Kaminiwa
Kawachi
Moriya
Akasaka
Ochikata
Shinonaga
Kaminishi
Yagi
Nishiji
Kaizukachō
Kamori
Kitamatsuo
Ikeda
Tsuruhara
Sanochō
Minamimatsuo
Umaka
Yokoyama
Kagata
Kawakami
Chihaya
Yamadaki
Mizuma
Hineno
Nagataki
Kumatori
Tsuchimari
Katsuragi
Ushitaki
Minamiyōkoyama
Makinodoyama
Chichiono
Takibaia
Amami
Makino
Kimi
Shinke
Tsuchi
Inamakiyama (Mount)
Shinoda
Yamada
Tsuji
Kaminate
Ikeda
Negoroji (Temple)
Kaseda
Myōji
Kudoyamachō
Kamuro
Koyaguchichō
Hashimotochō
Shimizu
Kōing
Nakato
Wadai
Kane
Shiide
Kamiya
Kokawa
Nate
Nateichō
Ōzu
Uchida
Iwade
Iwadechō
Funato
Kokura
Marusu
Kishi
Hosono
Amano
Hanasaka
Kōyasanchō
Kōbodaishibyō Temple
Kōyasan (Mount)
Ōmon
Uchita
Kinokawa (River)
Yoshinogawa (River)
Kaminiwa
Kawachi
Moriya
Akasaka
Ochikata
Shinonaga
Kaminishi
Yagi
Nishiji
Kaizukachō
Kamori
Kitamatsuo
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Sanochō
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Kagata
Kawakami
Chihaya
Yamadaki
Mizuma
Hineno
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Tsuchimari
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Makinodoyama
Chichiono
Takibaia
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Makino
Kimi
Shinke
Tsuchi
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Kamuro
Koyaguchichō
Hashimotochō
Shimizu
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Iwade
Iwadechō
Funato
Kokura
Marusu
Kishi
Hosono
Amano
Hanasaka
Kōyasanchō
Kōbodaishibyō Temple
Kōyasan (Mount)
Ōmon
Uchita
Kinokawa (River)
Yoshinogawa (River)
SCALE
1:200000
0 1 2 3 4 5 6 7 8 MILES
REFERENCE
RAILWAYS & STATIONS
SUBURBAN TRAMWAYS & STATIONS
CABLE TRAMWAYS & STOPS
STREET TRAMWAYS & STOPS
SHINTO SHRINES
BUDDHIST TEMPLES

REDUCTION RATIO 15:1

REDUCTION RATIO 15:1

2.5 mm ABCDEFGHIJKLMNOPQRSTUVWXYZ abcdefghijklmnopqrstuvwxyz 1234567890

2.0 mm ABCDEFGHIJKLMNOPQRSTUVWXYZ abcdefghijklmnopqrstuvwxyz1234567890

1.5 mm ABCDEFGHIJKLMNOPQRSTUVWXYZ abcdefghijklmnopqrstuvwxyz1234567890

PM-MGP
METRIC GENERAL PURPOSE TARGET
PHOTOGRAPHIC

200 mm

150 mm

100 mm

A3

A4

A5

1.0 mm

1.5 mm

2.0 mm

2.5 mm

ABCDEFGHIJKLMNOPQRSTUVWXYZ abcdefghijklmnopqrstuvwxyz 1234567890

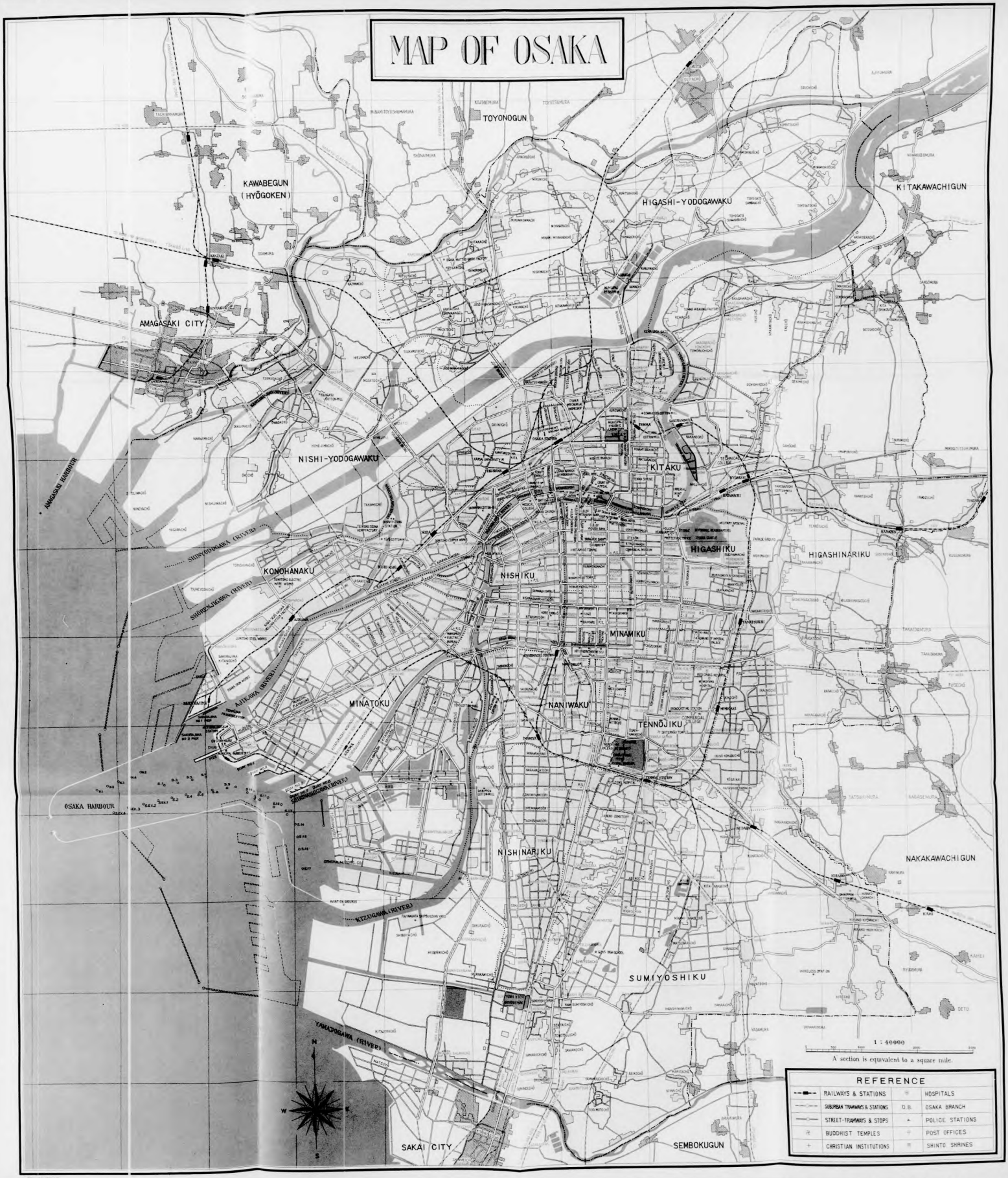
PRECISION℠ RESOLUTION TARGETS

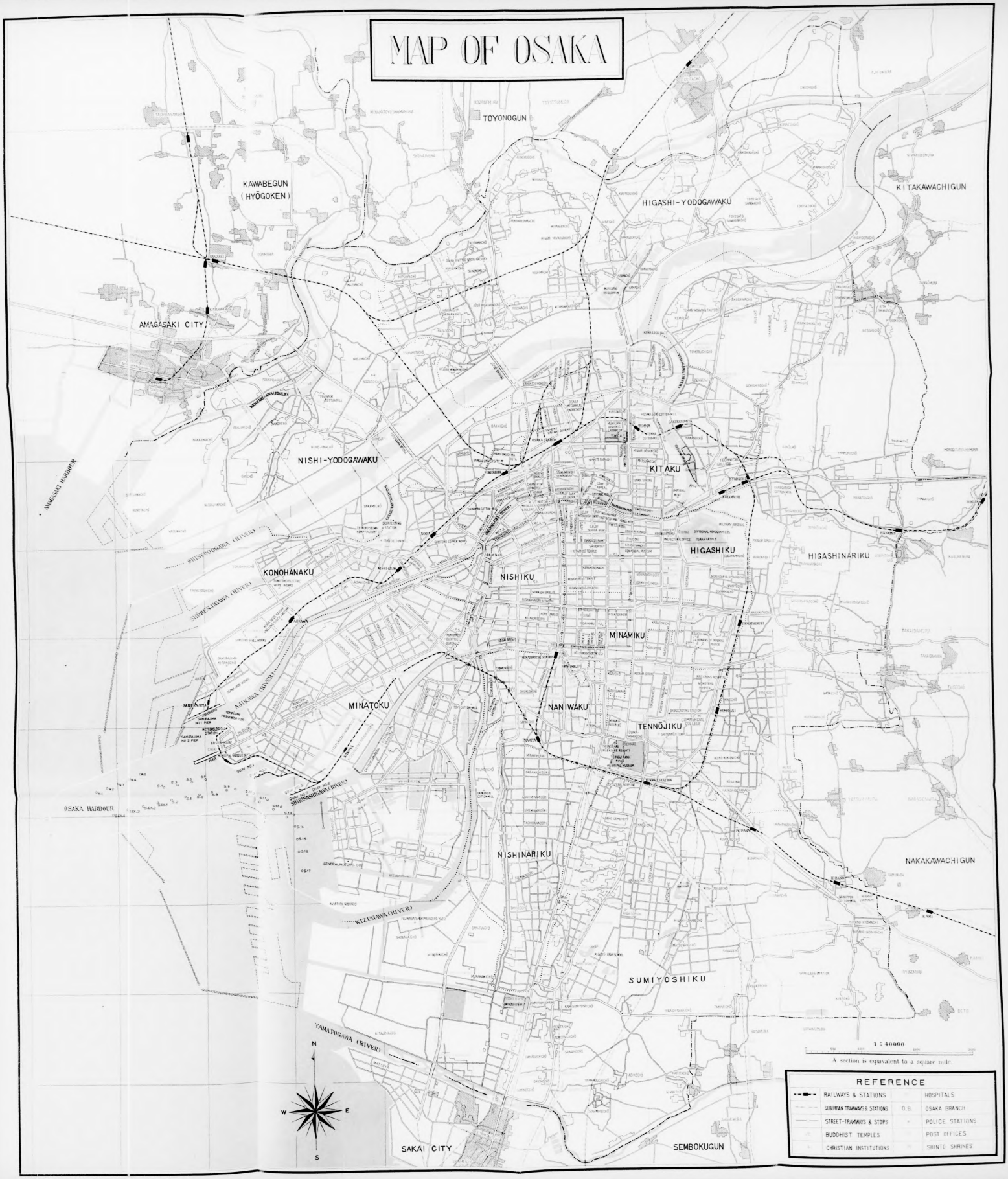
A&P International
2715 Upper Afton Road, St. Paul, MN 55119-4760
612/738-9329 FAX 612/738-1496

4.5 mm ABCDEFGHIJKLMNOPQRSTUVWXYZ abcdefghijklmnopqrstuvwxyz 1234567890

3.5 mm ABCDEFGHIJKLMNOPQRSTUVWXYZ abcdefghijklmnopqrstuvwxyz1234567890

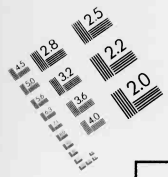
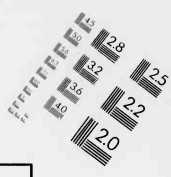
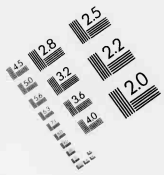
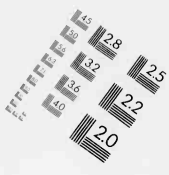
3.0 mm ABCDEFGHIJKLMNOPQRSTUVWXYZ abcdefghijklmnopqrstuvwxyz1234567890


MAP OF OSAKA
TOYONOGUN
KAWABEGUN
(HYŌGOKEN)
HIGASHI-YODOGAWAKU
KITAKAWACHIGUN
AMAGASAKI CITY
NISHI-YODOGAWAKU
KITAKU
AMAGASAKI HARBOUR
SHINYODOGAWA (RIVER)
HIGASHIKU
HIGASHINARIKU
KONOHANAKU
NISHIKU
SHIRIKAJIGAWA (RIVER)
MINAMIKU
AJIKAWA (RIVER)
MINATOKU
NANIWAKU
TENNŌJIKU
OSAKA HARBOUR
NISHINARIKU
NAKAKAWACHIGUN
KIZUGAWA (RIVER)
SUMIYOSHIKU
YAMATOGAWA (RIVER)
SAKAI CITY
SEMBOKUGUN
1 : 40000
A section is equivalent to a square mile.
REFERENCE
RAILWAYS & STATIONS
SUBURBAN TRAMWAYS & STATIONS
STREET-TRAMWAYS & STOPS
BUDDHIST TEMPLES
CHRISTIAN INSTITUTIONS
HOSPITALS
O.B. OSAKA BRANCH
POLICE STATIONS
POST OFFICES
SHINTO SHRINES


MAP OF OSAKA
TOYONOGUN
KAWABEGUN
(HYŌGOKEN)
HIGASHI-YODOGAWAKU
KITAKAWACHIGUN
AMAGASAKI CITY
AMAGASAKI HARBOUR
NISHI-YODOGAWAKU
KITAKU
HIGASHIKU
HIGASHINARIKU
KONOHANAKU
NISHIKU
MINAMIKU
MINATOKU
NANIWAKU
TENNŌJIKU
ŌSAKA HARBOUR
NISHINARIKU
NAKAKAWACHIGUN
SUMIYOSHIKU
SAKAI CITY
SEMBOKUGUN
YAMATOGAWA (RIVER)
KIZUGAWA (RIVER)
1 : 40000
A section is equivalent to a square mile.
REFERENCE
RAILWAYS & STATIONS
SUBURBAN TRAMWAYS & STATIONS
STREET-TRAMWAYS & STOPS
BUDDHIST TEMPLES
CHRISTIAN INSTITUTIONS
HOSPITALS
O.B. OSAKA BRANCH
POLICE STATIONS
POST OFFICES
SHINTO SHRINES

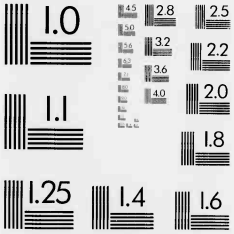
REDUCTION RATIO 10:1

PM-MGP
METRIC GENERAL PURPOSE TARGET
PHOTOGRAPHIC

150 mm

100 mm



ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz1234567890

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abcdefghijklmnopqrstuvwxyz
1234567890

ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz
1234567890

1.0 mm

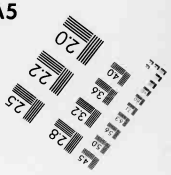
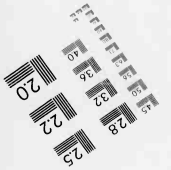
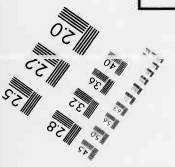
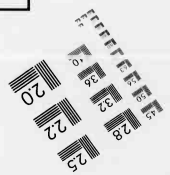
1.5 mm

2.0 mm

2.5 mm

A5

A4

PRECISION℠ RESOLUTION TARGETS

A&P International
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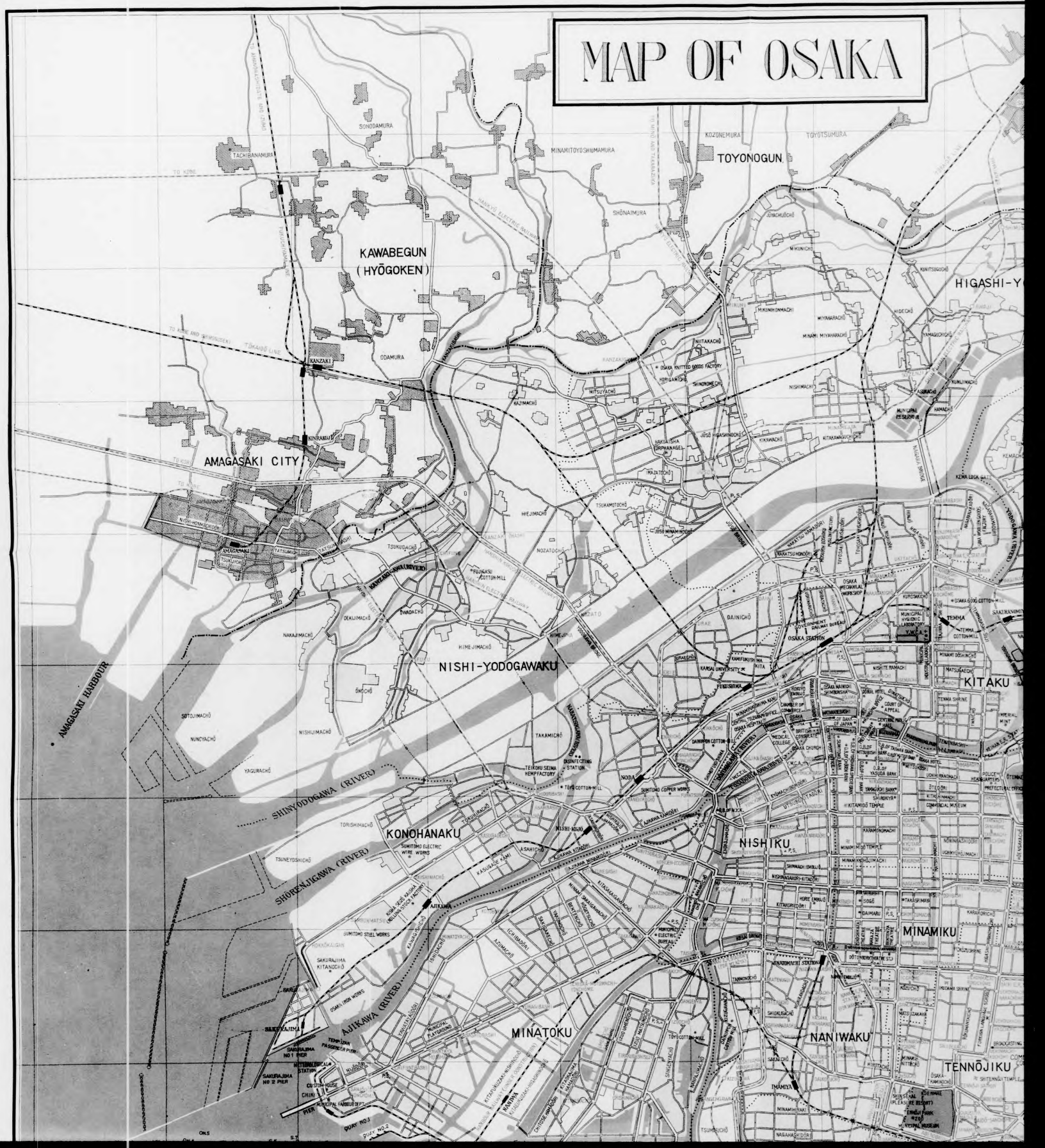
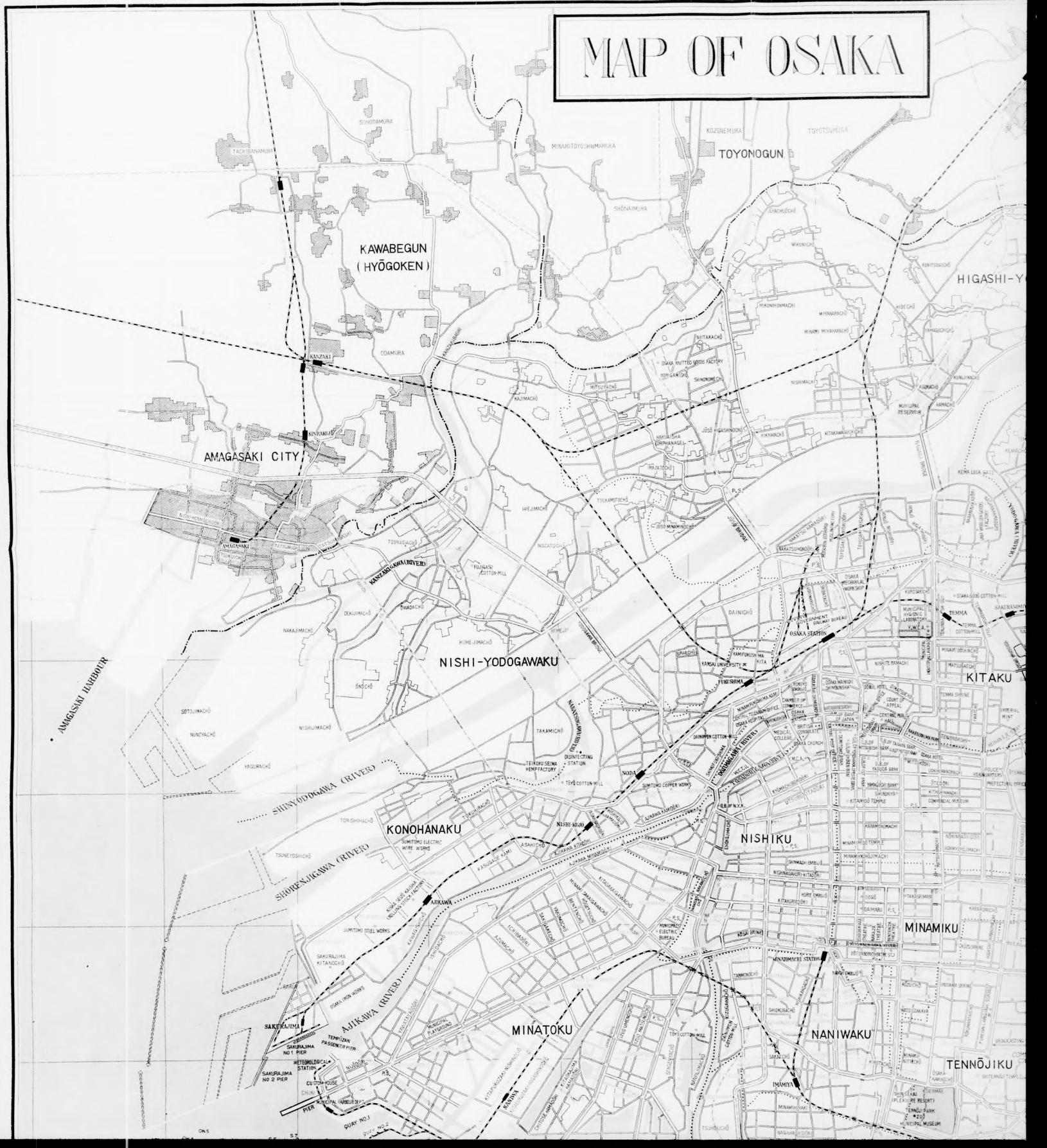
612/738-9329 FAX 612/738-1496


MAP OF OSAKA
TOYONOGUN
KAWABEGUN
(HYŌGOKEN)
AMAGASAKI CITY
NISHI-YODOGAWAKU
KONOHANAKU
KITAKU
NISHIKU
MINAMIKU
MINATOKU
NANIWAKU
TENNŌJIKU
HIGASHI-Y
AMAGASAKI HARBOUR
SHINYODOGAWA (RIVER)
SHORENJIGAWA (RIVER)
AJIKAWA (RIVER)
OSAKA STATION
OSAKA MEDICAL COLLEGE
OSAKA CHURCH
OSAKA KNITTED GOODS FACTORY
OSAKA IRON WORKS
SUMITOMO COPPER WORKS
SUMITOMO ELECTRIC WIRE WORKS
SUMITOMO STEEL WORKS
TOYO COTTON-MILL
KANZAKI
KINKAICHI
SONODAMURA
ODAMURA
SHŌNAIMURA
TACHIBANAMURA
MINAMITOYOSHIIMAMURA
KOZONEMURA
TOYOTSUMURA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AMAGASAKI CITY
AMAGASAKI HARBOUR
NISHI-YODOGAWAKU
KITAKU
KONOHANAKU
NISHIKU
MINAMIKU
MINATOKU
NANIWAKU
TENNŌJIKU
HIGASHI-Y
OSAKA STATION
KANZAKIGAWA (RIVER)
SHINYODOGAWA (RIVER)
SHORENJIGAWA (RIVER)
AJIKAWA (RIVER)
SAKURAJIMA
SAKURAJIMA NO 1 PIER
SAKURAJIMA NO 2 PIER
TEMPOZAN PASSENGER PIER
METEOROLOGICAL STATION
CUSTOM-HOUSE
PIER
MUNICIPAL HARBOUR DEPT.
QUAY NO.1
QUAY NO.2
KANZAKI
KINKAIJI
FUJIGASI COTTON-MILL
TOYO COTTON-MILL
DAINIPPON COTTON-MILL
OSAKA GOKI COTTON-MILL
TEMMA COTTON-MILL
SUMITOMO COPPER WORKS
SUMITOMO ELECTRIC WIRE WORKS
SUMITOMO STEEL WORKS
OSAKA IRON WORKS
OSAKA KNITTED GOODS FACTORY
TEIKOKU SEIMA HEMP FACTORY
DISINFECTING STATION
OSAKA MECHANICAL WORKSHOP
MUNICIPAL ELECTRIC BUREAU
MUNICIPAL PLAYGROUND
MUNICIPAL RESERVOIR
OSAKA MUNICIPAL GOVERNMENT RAILWAY BUREAU
MUNICIPAL HYGIENIC LABORATORY
OSAKA MAINICHI SHIMBUNSHA
OSAKA ASAHI SHIMBUNSHA
OSAKA HOSPITAL
OSAKA CHAMBER OF COMMERCE
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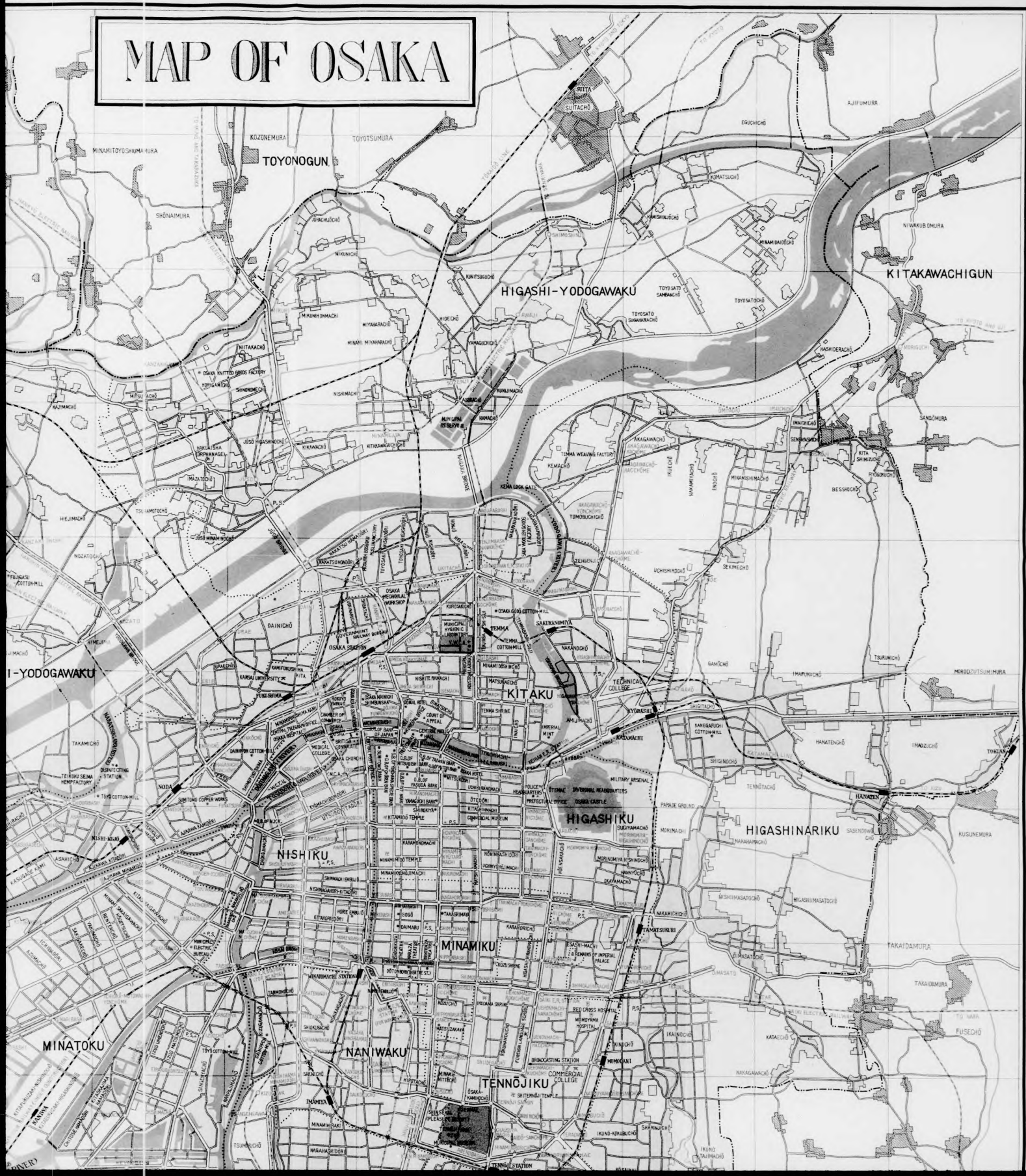
MAP OF OSAKA
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OSAKA CASTLE
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NAKANOSHIMA
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COMMERCIAL COLLEGE
KEMA LOCK GATE
TEMMA WEAVING FACTORY
OSAKA KNITTED GOODS FACTORY
OSAKA MEDICINAL WORKSHOP
MUNICIPAL HYGIENIC LABORATORY
OSAKA GOSO COTTON MILL
TEMMA COTTON MILL
DAINICHI COTTON MILL
TOYO COTTON MILL
KANEGAFUCHI COTTON MILL
FUJIKASU COTTON MILL
OSAKA HOSPITAL
MEDICAL COLLEGE
RED CROSS HOSPITAL
MIMOYAMA HOSPITAL
BROADCASTING STATION
MUNICIPAL ELECTRIC BUREAU
MUNICIPAL TRAMWAYS BUREAU
GOVERNMENT RAILWAY BUREAU
MUNICIPAL ASSEMBLY
COURT OF APPEAL
PREFECTURAL OFFICE
MILITARY ARSENAL
IMPERIAL MINT
DIVISIONAL HEADQUARTERS
POLICE HEADQUARTERS
CENTRAL POST OFFICE
CHAMBER OF COMMERCE
CENTRAL TELEGRAPH OFFICE
OSAKA MAINICHI SHIMBUNSHA
OSAKA ASAHI SHIMBUNSHA
OSAKA HOTEL
OSAKA CHURCH
KANSAI UNIVERSITY
SUMITOMO COPPER WORKS
TEIKOKU SEIMA HEMPFACTORY
DISINFECTING STATION
SHITENNŌJI TEMPLE
IKUTA SHRINE
TEMMA SHRINE
HIKAWA SHRINE
SUITA
SUITACHŌ
KOZONEMURA
MINAMITOYOSHIMA-MURA
TOYOTSUMURA
SHŌNAIMURA
AJIFUMURA
NIWAKUBUMURA
SANGŌMURA
MORODZUTSUMIMURA
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KUSUNEMURA
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UCHISHIRODŌ
GAMŌCHŌ
TSURUMICHŌ
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HANATENCHŌ
IMADZUCHŌ
SHIGINOCHŌ
SHIGITACHŌ
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KADOMACHI
AMIJIMACHŌ
TENNŌTACHŌ
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NAKAMICHICHŌ
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MINAMINODO TEMPLE
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KARAORICHŌ
KAZUDŌ SHRINE
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NAMBA BRIDGE
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KASUGAE-YAMI
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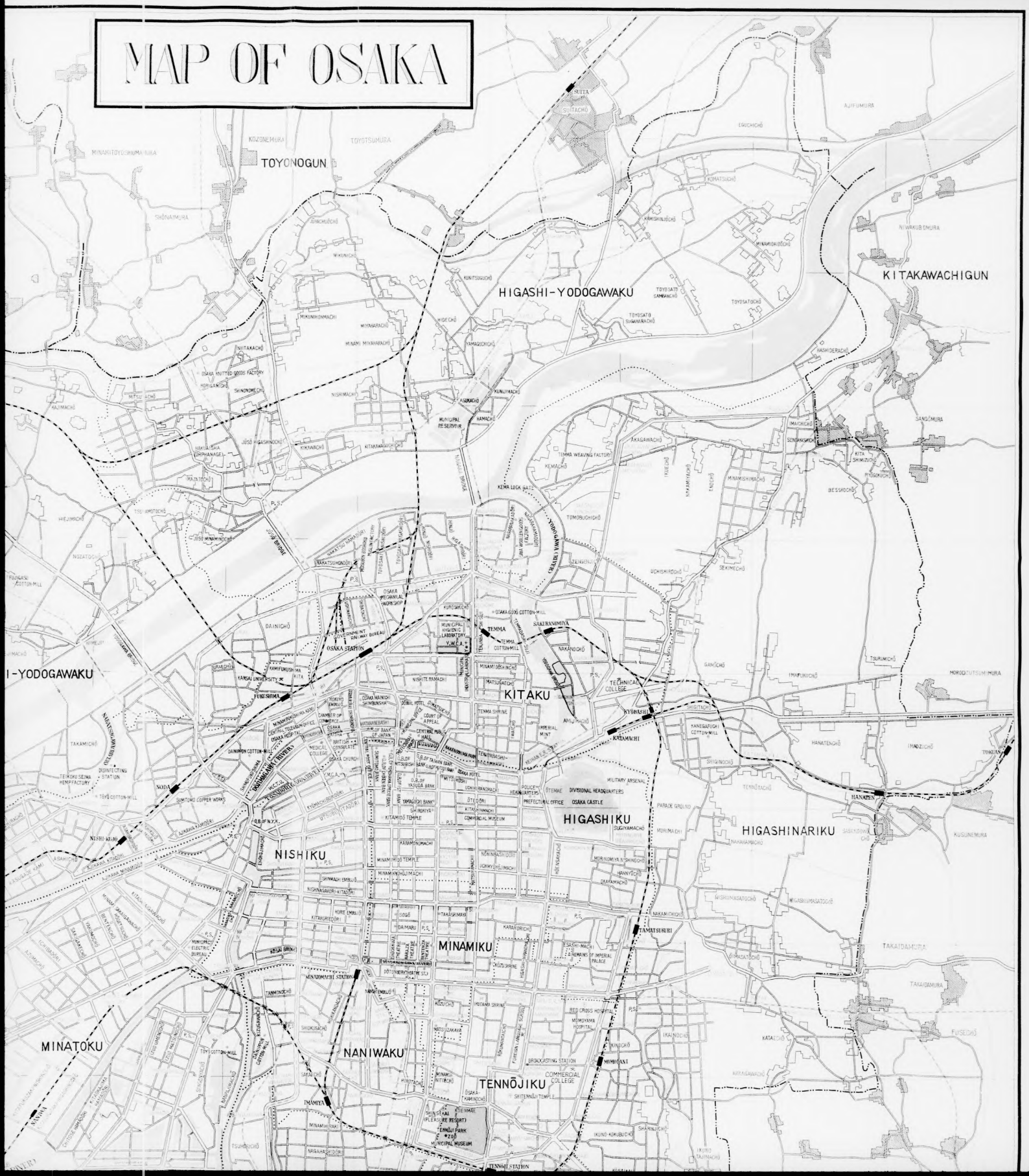
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SUMIYOSHI
SAKAI CITY
SEMBO
OSAKA HARBOUR
AWAGASAKI HARBOUR
SHINYODOGAWA (RIVER)
SHŌRENJIGAWA (RIVER)
AJIKAWA (RIVER)
SHIRINASHIGAWA (RIVER)
KIZUGAWA (RIVER)
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OSAKA STATION
TENMA
NODA
SAKURAJIMA
SAKURAJIMA NO 1 PIER
SAKURAJIMA NO 2 PIER
TEMPOZAN PASSENGER PIER
CUSTOM-HOUSE
CHINJI PIER
MUNICIPAL HARBOUR DEPT.
QUAY NO.1
QUAY NO.2
QUAY NO.3
QUAY NO.6
QUAY NO.7
QUAY NO.8
GENERAL MOTORS CO.
AVIATION GROUNDS
FUJINAGATA SHIPBUILDING YARD
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SUMIYOSHI
SAKAI CITY
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TEMPOZAN PASSENGER PIER
METEOROLOGICAL STATION
CUSTOM HOUSE
MUNICIPAL HARBOUR DEPT.
PIER
QUAY NO.1
QUAY NO.2
QUAY NO.3
QUAY NO.4
QUAY NO.5
QUAY NO.6
QUAY NO.7
GENERAL MOTORS CO.
AVIATION GROUNDS
N
S
E
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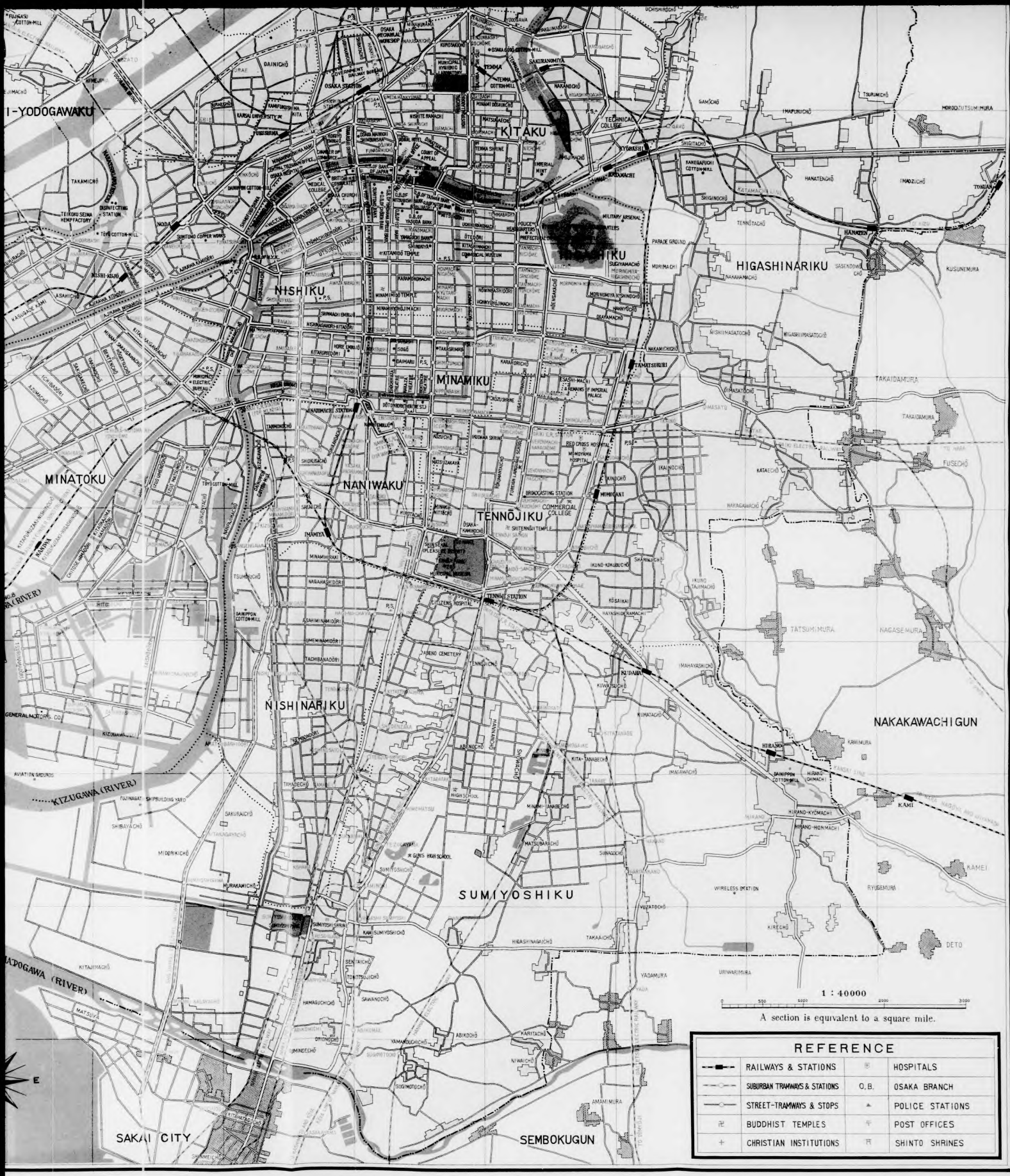
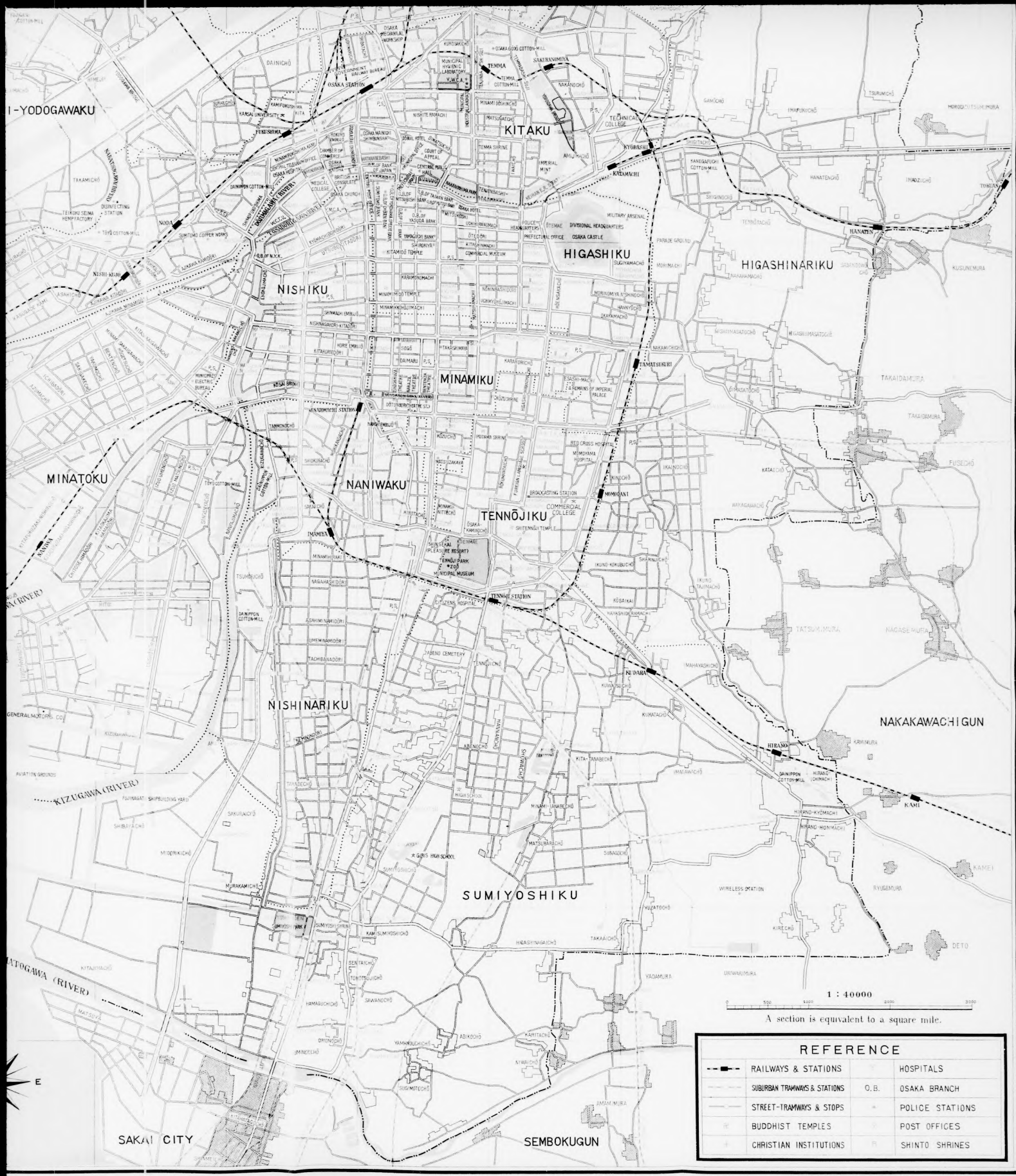

KITAKU
NISHIKU
MINAMIKU
HIGASHINARIKU
MINATOKU
NANIWAKU
TENNŌJIKU
NISHINARIKU
SUMIYOSHIKU
NAKAKAWACHIGUN
SEMBOKUGUN
SAKAI CITY
KIZUGAWA (RIVER)
OSAKA STATION
OSAKA CASTLE
TENNOJI STATION
1 : 40000
A section is equivalent to a square mile.
REFERENCE
RAILWAYS & STATIONS
SUBURBAN TRAMWAYS & STATIONS
STREET-TRAMWAYS & STOPS
BUDDHIST TEMPLES
CHRISTIAN INSTITUTIONS
HOSPITALS
O.B. OSAKA BRANCH
POLICE STATIONS
POST OFFICES
SHINTO SHRINES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